Dispatches from the medical front

Qallunaat

Our research team landed in Igloolik, Nunavut, to find the village in shock.

A young high-school student had just committed suicide in the girls' washroom. I too was stunned by the unexpected violence, and sheer desperation of her act. It was made worse by the enormity of the problem: of about a dozen research assistants helping us in various communities in Nunavut, 2 stopped work after a friend or family member committed suicide, and another temporarily stopped working after a family member was murdered.

I see Inuit society as one turned upside down by rapid change. With families tied down in villages, rather than following the migratory patterns of the wildlife, people have yet to find sufficient employment or a new purpose, and despair is all too common.

The elders — the traditional sources of wisdom — have no answers.

The loss of research assistants was becoming a major problem for our study. Despite high levels of unemployment, there are few individuals able to assist with research, and the core of such individuals in each community are sought after by numerous other investigators and organizations. Our study was also facing other significant obstacles. Developing ventilation units for houses when the outside temperature, at least unofficially, was −72°C, was challenging.

Igloolik is a community where the kids play street hockey — wearing skates.

A shortage of trained technicians meant that the Heat Recovery Ventilators we had installed, to evaluate whether they could prevent respiratory infections, had not been balanced according to specifications. Some study participants felt the units were drafty, and had unplugged the units or boarded them up.

Fortunately, our study also had crucial supports. At a town hall meeting I'd held in Cape Dorset several years earlier, I'd asked the elders whether babies used to get sick in years past, and was told "only when the *Qallunaat* [southerners] arrive in their ships." A group of mothers in Igloolik had banded together to help infants avoid the now-annual community outbreaks of respiratory syncytial virus infection by helping ensure our study would succeed.

Next year, we'll fine-tune our heat recovery ventilators, and plan to recruit high-school students to assist our researchers with the health surveys and to introduce them to research. Hopefully, the day will come when respiratory syncytial virus season no longer means rows of nebulizer masks labelled with each child's name, in nearly every community's nursing station. — Tom Kovesi MD, Ottawa

DOI:10.1503/cmaj.071363

Dr. Tom Kovesi

Igloolik is a community where the kids play street hockey — wearing skates.

Mzungu

Susanna peers out at us disdainfully from behind the edematous folds of her face. She is 2 years old and suffering from severe Kwashiorkor malnutrition.

"The signs of Kwashiorkor," explains the clinical officer who has become my mentor during my elective in Tanzania, "are edema, dermatitis, and misery." Susanna has all 3 in abundance.

I examine her as she sits ever so still, wrapped in her mother's emerald green kanga with its elfin little hood hiding her thin, brittle hair. She is clearly not improving despite weeks in the hospital.

After rounds, I venture out of the pediatric bungalow into the lush vegetation of the hospital grounds in search of the nutritionist. We exchange the necessary multitude of greetings in Swahili, and then I ask him abruptly why Susanna is still receiving maize porridge as her sole treatment. He tells me that after recent financial cutbacks at the hospital, malnourished children are no longer eligible for free food. Susanna's mother can only afford maize porridge.

Unsatisfied with this standstill, I persist. That afternoon I am informed that there is a policy that children with Kwashiorkor should be referred to the regional hospital for re-feeding with UNICEF formula.

I feel outraged that Susanna has been wasting away while this formula was available.

Why hasn't Susanna been referred?

The next morning I arrive at pediatric rounds feeling uncomfortable

Melissa Vyvey

University of Toronto medical student Melissa Vyvey (inset) spent 6 weeks last summer at a small hospital in Northern Tanzania doing a pediatrics elective. She found herself at times fascinated, at times confused and ultimately moved.

that as a visiting "mzungu" (white person) medical student I am about to deliver a lecture on health policy to my mentor. When we reach Susanna, my mentor picks up the chart — "the nutritionist says Susanna is to be discharged today."

I blink in disbelief and explain, perhaps too emotionally, about the regional hospital, the UNICEF formula, and the policy.

My usually patient mentor looks annoyed. After all, how many standstill cases has he been forced to accept each day in his hard-working career?

He turns to Susanna's mother and speaks rapidly in Swahili. "She says, she knows about the regional hospital, but she cannot afford the 30-cent bus fare to get there," he translates.

Finally understanding and feeling helpless I, the mzungu, pass Susanna's mother a few bills and wish that we were not all in this position.

My mentor replaces the blue discharge form with a pink referral form. And I begin to wish that I had spent my 6-week elective in Tanzania petitioning UNICEF for re-feeding formula for this district hospital, rather than shadowing doctors.

It is too late now. I am leaving in 3 days for Canada. — Melissa Vyvey MPhil, Toronto

DOI:10.1503/cmaj.071362

Measles

I had never seen a case of measles before arriving in Democratic Republic of Congo.

But I rapidly learned how to diagnose it.

It's easy if spots are already visible (check behind the ears). The prodrome, however, is tricky but crucial if you're going to accomplish quarantine. It is a respiratory virus, after all, with fever, runny nose, perhaps a cough. The syndrome makes the diagnosis: add a purulent or hyperemic conjunctivitis, mouth ulcers, a few crackles in the lungs, or some diarrhea. Only the vigilant and lucky observer will see the very transient Koplik spots.

At first, we isolated cases in 2 little rooms, formerly offices. Then it got too crowded. And where to put those uncertainties that might be a normal URTI (upper respiratory tract infection)? We opened a third pediatrics ward. Peds A was general pediatrics; Peds B housed TB, HIV and malnutrition; Peds C became the measles ward, although it hosted a few adults as well. When it got full, we put up an army tent. Then another. Then a third. At the height of the epidemic, we had more than 50 inpatients in that ward. This, in the back of a 160-bed hospital.

Measles immunization is the second priority in refugee emergencies, after "assessment" and before water, shelter, and food. The disease is highly contagious, with high potential morbidity and mortality. And, of course, it's preventable.

Complications can include keratitis and corneal ulcerations. We didn't find any subacute encephalitis in our 800-or-so registered cases. What we did see, in excess, were respiratory infections such as bacterial laryngitis or pneumonia. I noticed a few cases of primary TB as the secondary infection. Measles causes a temporary immunodeficiency: the rash is produced by an immune reaction which is followed by anergy.

And often, 2 or 3 months after their measles infection, children were readmitted for acute severe malnutrition, due to viral-induced enteropathy and baseline borderline nutritional status.

We had a death rate of greater than 10%. The epidemic lasted 6 months. And now, back in Canada, I have a lot of things to say to parents who are suspicious of the MMR vaccine. — Wendy Lai MD, Toronto

DOI:10.1503/cmaj.071316

CMAJ invites contributions to Dispatches from the medical front, in which physicians and other health care providers can provide eyewitness glimpses of medical frontiers, whether defined by location or intervention. The frequency of the section will be conditional on submissions, which must run a maximum 350 words or be subject to our ruthless editorial pencils. Forward submissions to: Wayne.Kondro@cma.ca