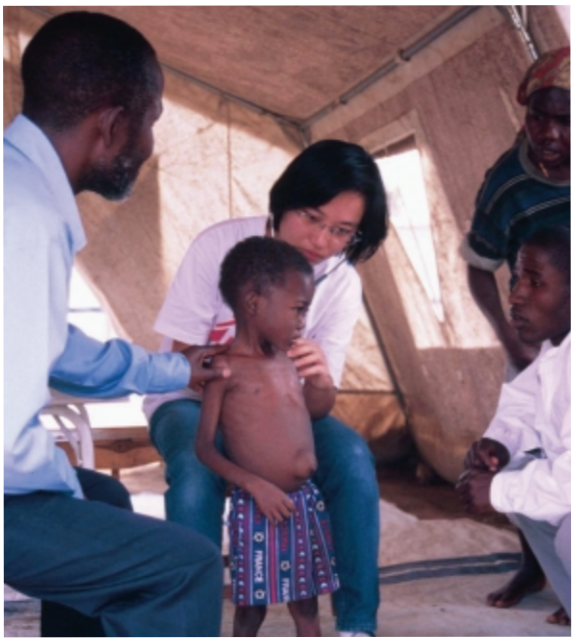
Cold Chains and Hot Spots

By Dr Wong Ting Hway



Examining a child with mild malnutrition in a supplementary feeding centre clinic, with Angolan tecnico medios (physician assistants) looking on.

A few weeks ago, Ryan, a student of industrial design at NUS, contacted me. He heard that I had worked for various aid organisations before and wanted some advice. He was asking about the cold chain for vaccines in poor countries – could he design some sort of cheap fridge that would improve things?

I started by explaining what a cold chain was, the importance of keeping vaccines at a certain temperature until they reached the people who needed vaccination. If the vaccines were no longer cool when people got vaccinated, it was about as bad as not being vaccinated.

There was a pause on the other end of the telephone, and mentally I conjured up an image of someone scribbling notes and looking through a checklist of questions.

"So what happens if people aren't vaccinated?"

It was a Sunday afternoon; I was sitting at home with sunlight streaming in through the windows and the air-conditioner humming in the background behind me. The radio was playing a favourite song, so vaccines and cold chains all seemed very far away.

WHAT HAPPENS?

"What happens," I thought to myself. What happens if people are not vaccinated?

I thought of the rooms full of children, running away from the fighting, arriving in the city where the aid agencies were based, already dying of hunger. Some of them were missing an arm from a bullet, or a leg from a landmine. Most did not even have blankets to sleep in at night, nor water to drink or wash with. So what if they did not get vaccinated?

Wars still continue, people still starve, landmines still go off while people are out gathering firewood.

Then I thought of the epidemic that happened at a therapeutic feeding centre for malnourished children in Angola, two years ago.

MEASLES EPIDEMIC

I was working for *Medecins sans Frontieres* (Doctors without Borders), as a doctor in the feeding centre. We were a team of about twenty nurses, doctors, administrators and logisticians; running the hospital, feeding centre and providing healthcare in the camps for the displaced. The war in Angola had been going on for thirty years and every day there were people turning up malnourished at our feeding centre, sometimes because they had fled their homes for fear of fighting, sometimes because they could not work their fields any more due to landmines.

One day Sophie, a Belgian nurse coordinating healthcare in the camps for displaced persons, came back to our living quarters and said, "We have measles in the refugee camps."

"Oh, how interesting," was my first reaction. With everybody back home vaccinated, I had never seen measles before. All the photos in my books were of red spots on pale skin. I wondered how it would look on African skin. I soon knew.

By the following week, the hospital was full of people with measles – *"sarampo"* in Portuguese, the official language in Angola. On African skin, it is a fine powdery rash, as if someone had sprinkled flour over their bodies and faces; the spots are the same colour as the rest of the skin, and not at all like the photos I had seen in books.

We were witnessing an epidemic. People were dying from the complications – I had not even known that you could die from measles – complications include pneumonia, skin infections and septicaemia.

Maria, one of the *tecnico medios* (physician's assistant) at the Feeding Centre, had been away from work. Her six-month-old son had been ill. Before he fell ill, he was carried to work, a live tortoise shell on his mother's back – like many babies with working mothers in Angola – simply falling asleep with a big smile on his little face while his mother listened to ill patients and administered medication. Tall and slim, her back erect, Maria carried on working as if there was no burden on her back at all.

One day, after Maria returned to work, I chatted with her. Her child lay huddled in a swathe of cloth, straddled on his mother's back.

How many children did she have?

Two children. This was the younger one, a son. "And *Doutora* (Doctor)?"

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About the Author:
Wong Ting Hway has worked – not always as a doctor – in various places, her work environment ranging from tents and huts to red-carpeted air-conditioned hallways. She has now decided to disguise herself as a "real doctor" in Tan Tock Seng Hospital. Readers who wish to find out more about opportunities working in developing countries can email travelmed@doctors.net.uk

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I shrugged. I wasn't married yet. "But I have 400 children here in the CNT *(Centro Nutricional Terapeutico, or* Therapeutic Feeding Centre)..."

She smiled in response. How old was I?

"28."

Ah, same age as she was.

"Well, we could have been twins!"

Maria laughed.

We arrived at the nutrition tent. We didn't talk for a long time after that. There were many children to see, many things to do, and the number of children getting measles was climbing.

The following week, MSF held a meeting with the hospital director. We made the decision to start a separate measles centre for patients with measles. The numbers had skyrocketed – we were discovering hundreds of new cases every week.

We began the measles centre, using the vacant tents we had from another project, and we started an extended campaign of measles vaccination and vitamin A distribution. It was sometimes difficult to persuade parents from the camps for displaced persons to accept this strange injection that came packed in styrofoam boxes, and our nurses worked hard to persuade the parents.

It was several weeks before I saw Maria again. Back at work, she was the most ardent campaigner, talking the parents into accepting the vaccinations, making sure nobody missed their shot. I didn't notice at first, but although there was nobody on her back, she stooped as she went around the patients, as if carrying a huge burden.

I finally found a moment to speak to her. How was her child?

There was a silence as Maria looked down at her hands, fumbling.

"He passed away."

Oh no! What happened?

"Complications of measles." Her eyes shone with tears, and only then did I realise how much thinner she had become.

My twin had aged ten years.

STORIES UNTOLD

Ryan and I finished our discussion. I hoped that I had given him enough information.

There were some things I didn't tell him, couldn't tell him – someone I was talking to for the first time on the telephone.

I did not tell him that, two months after I left Angola, the rebel leader Savimbi was killed in the battlefield. Some people held their breath for peace, but others knew better.

Thousands of people previously living in rebel-controlled territory flooded the feeding centre, people the war had prevented us from reaching before. Children were still dying, as they had been before the ceasefire. Now, there were simply more witnesses to the fact.

I did not tell him about my colleague Alberta, a retired doctor whose son is my age, on her first mission with MSF, who cried almost every day because she could not bear to see children die.

A "ward" in the Therapeutic Feeding Centre, the equivalent of the intensive care unit for malnourished children, where children must be fed every three hours on a carefully maintained feeding regime.

We are still in touch – she has just finished her third mission as a nutrition doctor with MSF.

I also did not tell Ryan, that fourteen months after I had left Angola, my friend and co-worker there, Ricardo Munguia, was killed in Afghanistan while working as an engineer with the International Committee of the Red Cross.

AID ORGANISATIONS

Many people join aid organisations, whether as a short-term volunteer stint, a medium-term break, or a long-term career. Aid organisations generally fall into two categories:

(1) Development organisations (i.e. Improving the systems that can benefit the society long-term.)

(2) Emergency / humanitarian organisations (Generally referring to aid organisations that work in areas of conflict or instability, although, of course, there is a "grey area" between the two fields of work.)

It is difficult to know whether you would like it or not until you actually do it, and even then, the nature of work varies greatly from organisation to organisation. For example, the experience of working in a short-term clinic that comes in and leaves would be very different from a long-term project teaching or training health workers. Living conditions also vary – few organisations, particularly the long-term organisations, require you to "rough it out" in a tent! However, life in the field is often unexpectedly ordinary once you adapt – despite the difficulties, people still eat, still sleep, still drink, and still disagree with each other...

In memory of my friend and colleague, Ricardo Munguia, water and sanitation engineer with the International Committee of the Red Cross, killed in Afghanistan, 27 March 2003.

Wong Ting Hway, 2 November 2003, Singapore ■

References:

For readers who are interested in volunteer work, here is an interesting article to read: Advice for aspiring volunteer physicians. Mitka M. JAMA. 1999 Aug 4;282(5):413.

For a list of useful websites and organisations, please see the online version of SMA News at http://www.sma.org.sg/sma_news/newscurrent.html