

## Dispatches from abroad: aground in a sea of TB

Douglas Kittle

**A**ral Sea, Karakalpakstan — It's another punishingly hot day as I make my way to the project sites for a routine supervisory visit. Médecins sans Frontières is in this remote, semi-autonomous region of Uzbekistan to help the local Ministry of Health combat a frightening tuberculosis epidemic. By training local health care workers and providing drugs, laboratories, and water and sanitation upgrades to their facilities, we are bringing the World Health Organization's recommended DOTS (directly observed treatment, short course) TB-control strategy to this forgotten corner of the world.

Uzbekistan and Turkmenistan are central Asian republics that were once part of the proud Soviet empire. Since 1991 they have been independent and left to struggle alone and against all odds as they try to cobble together an economy and mount a defence against social, health and economic problems left over by a fractured and dispirited Soviet Union. Along with Kazakhstan, they have inherited the legacy of the world's worst man-made environmental disaster — the calculated destruction of the fourth largest inland body of water in the world through years of centralized, massive irrigation schemes that ran amok. Years of cotton production under these unnatural circumstances has resulted in a dying and ever-drying sea, in hectares of insecticide- and pesticide-ridden exposed seabed, salt-encrusted land and drinking water laced with so much dissolved salt it is virtually undrinkable.

The sea-based economy has already disappeared and the land is becoming ever less productive, thus robbing people of their livelihood. Poverty-related problems like anemia, malnutrition, TB and other infectious diseases are rampant.

Recognizing the enormity of the TB crisis in the Aral Sea area — it is acknowledged by WHO to be the worst in Europe and the former Soviet Union — MSF came here in 1997 and established a DOTS control strategy to help stem the epidemic. We also started an operational research program to determine links between the environmental disaster and human health. These programs work with local counterparts and help build local capacity while providing services.

Routine supervisory visits are part of my role as medical coordinator for MSF activities here in Uzbekistan and Turkmenistan. They start with an early Monday morning,



Dr. Douglas Kittle (left) and colleague in Dashoguz city

2-hour flight in an antiquated Yak or Antonov from my base in the Uzbekistan capital of Tashkent to Nukus, capital of the Karakalpakstan region. After a quick trip to the MSF office there to meet the local and regional project teams, I'm off by car with the team's physician and nurse to visit the TB hospitals in the districts where DOTS has been implemented. We started with 2 pilot sites and have now committed to rolling out DOTS across the Aral Sea area of both countries.

Our first destination is Muynak, a once-thriving fishing port and spa town on the Aral Sea. It is now a dusty, depleted replica of its former self that is now more than 100 km from the shrinking sea. Even though the sea is gone the town retains its beach-like feel in a ghostly sort of way. TB incidence is highest here among all our project sites — more than 250 cases per 100 000 people per year. The road to Muynak is straight and smooth, generally quiet except for the occasional truck loaded with melons and grapes that is heading to Moscow, and returning trucks loaded with Siberian timber. The land is unrelenting, flat desert that has been reclaimed for cotton, winter wheat and rice, all under irrigation. There is a haunting beauty about it, especially in the light of the morning and evening skies, but everywhere it is scarred by the canals, their dredged contents lying adjacent as mole mounds and haphazard tele- phone and electrical lines criss-cross the landscape. Cattle and goat herds, along with flocks of big-rump sheep,

speckle the surrounding stubble, searching for fodder. They are occasionally relieved by camels which, though more natural to the environment, nevertheless lend an exotic touch to this otherwise monotonous landscape.

The TB hospital in Muynak is located on the former shore of the Aral Sea and from the compound you can clearly see the rusting hulks of grounded ships, askew on the parched sea bed. The scene is surreal, as is the hospital. It has 55 beds, with 6 to 8 patients to a room. The 2 bungalows that house people — 1 for smear-positive patients, 1 for smear-negative patients — are tidy and well kept. The flower beds are immaculate, the compound clear of debris. The silence of the place and the youth of the patients are striking. The patients' average age is 28, and they appear resigned to their long hours of solitude. These hours stretch into months, as the practice is to hold them throughout the intensive phase of treatment that can last as long as 3 months.

We spend the night at our guest house in Muynak, then head back towards Nukus, stopping at another site before diverting to cross the border into Turkmenistan, where we meet our team and tour the operations. From Turkmenistan, we go back to Uzbekistan to visit the team in Khoresm, before returning to Tashkent by the end of the week. Ideally, I make these field visits 1 week out of 4, but lately there have been fewer of them. Managing the medical component demands more of my time in Tashkent, where I work with the management team on a service that aims to bring DOTS to 4 million people.

I chose MSF because of its proximity to the patients it serves, the advocacy it promotes on behalf of these people, and the commitment of the volunteers it places in these far-flung corners. I receive my rewards in spades. The roller coaster remains exciting but very demanding, and the challenges, both personal and professional, constantly remind me that one's never too old to learn.

One of the many stories is about our relentless, year-and-a-half-long search for an accessible, accredited laboratory to undertake routine TB culture and sensitivity testing so that we could have a profile of TB drug resistance in the communities we serve. Yes, it is hard to believe that we are offering a TB-control strategy based on DOTS to 4 million people and there is not 1 reliable local lab that can do this work (we have provided microscopy training). Globally, 90% of the excess lab capacity is where less than 10% of the TB burden resides. Bringing forward from the field inequities like this is the cornerstone of the campaign's activities.

I left a comfortable position as a public health director in Guelph, Ont., to finish off my career with MSF, and haven't regretted the decision. I'm near the end of my first 2-year contract, but if I can keep up the pace I'll sign on again and meet ever more challenges in this never boring, never timid field of humanitarian medicine.

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