

## DISPATCH FROM THE MEDICAL FRONT

## Death and suffering in the land of Genghis Khan

When Médecins Sans Frontières (MSF) asked me to join an exploratory team investigating the health impacts of the 2010 dzud in Mongolia, my first question was: What's a dzud? An Internet search revealed that this Mongolian word refers to an extreme winter emergency. Great, I thought, who better than a Canadian to understand a winter emergency?

I would quickly learn, however, that it is anything but easy to address the effects of a dzud, and that its impact on the people of Mongolia, particularly its nomadic herders, went far beyond an elementary understanding of snow and ice.

The word “dzud” really describes a range of recurring weather conditions. What all of these conditions have in common is their ability to kill livestock, either by starvation or exposure to cold. In a country where animals provide food, clothing, transportation and livelihoods for 30% of the population, a dzud is a national disaster. On an individual level, it causes untold hardships for the nomadic herder.

“Our animals are our lives,” one middle-aged herder told me, her voice matter-of-fact, her eyes brimming with tears. “Without them, we have nothing.”

I was told several years ago that no two missions with MSF are alike. Indeed, this mission, my third, was entirely different from the others. First, it was in a country that, according to [geography.about.com](http://geography.about.com), has the coldest capital city in the world, rather than in tropical Africa, where I had spent my previous missions. More importantly, it was an exploratory mission and required different skills. Whereas my first two missions were largely clinical and administrative, this one was all about epidemiology, public health and rapid needs assessment.

Our team started in Ulaanbataar, the capital city, where we talked with repre-



Reuters/STR New

**Storms accompanied by extremely cold weather sometimes kill livestock in Mongolia, a country where nearly a third of the population depends on animals for food, clothing, transportation and income.**

sentatives of government, the UN, the Red Cross and other nongovernmental organizations. We reviewed documents and analyzed data from various sources. A picture of the disaster quickly emerged.

It started with a drought in the summer of 2009, a so-called “black dzud.” The drought prevented herders from stockpiling animal fodder for the winter. The extreme winter weather that followed compounded the problem. Heavy, prolonged snowfall — called a “white dzud” or, more presciently, a “white death” — prevented animals from grazing.

Herders, trapped in their gers (traditional round felt tents sometimes called yurts), were unable to reach their herds to keep them moving. Many animals simply froze to death in situ. An additional problem was the sheet of ice, or “iron dzud,” that formed over pastureland, a barrier animals couldn't penetrate. By the spring of 2010, more than

eight million livestock had died, triggering widespread food insecurity in many regions across Mongolia.

The dzud cut people off from basic services, sometimes for weeks, and impeded their access to health care. Heavy snowfall blocked roads and prevented transport of seriously ill patients. Some facilities ran out of essential drugs; hospitals couldn't heat their wards; and a serious H1N1 outbreak at the end of 2009 made everything worse.

Morbidity and mortality rates rose dramatically; in some areas, according to UNICEF, the under-five mortality rate increased almost twofold from the same period in previous years. For children, the burden of disease was mostly complications of acute respiratory tract infection; for adults, it was worsening of chronic health conditions and psychological trauma.

From our research in Ulaanbataar, we decided Uvs province, a remote

area in the northwest part of Mongolia, required further investigation. We planned a 10-day, 1000-km circle trip that included the more inaccessible and harder hit areas of the province. Along with our Mongolian interpreter and our driver, the exploratory team travelled in the stalwart of Mongolian vehicles: an old Russian van with a refitted interior and capable of handling the diverse terrain of steppe, mountain and desert.

It was May and already most of the

snow and ice were gone. In some areas, the bones of dead animals littered the ground. At each place we visited, we spoke with people from various levels of health care. We interviewed workers, patients, community members. Everywhere we went, the kindness and hospitality of the Mongolian people overwhelmed us.

As a result of our exploratory mission, MSF is running a pilot project in Uvs. Medical officers will receive

training, basic infrastructure will be improved, health facilities will receive back-up supplies of drugs and herders will receive first aid kits. The project's objective is to prepare for another disaster this winter. If that disaster comes, hopefully there will be fewer deaths and less suffering this time than in the dzud of 2010. — Lauralee Morris MD, Ulaanbataar, Mongolia

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