Faith and Earthquakes

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On Tuesday, January 12, 2010 at 4:53 PM Central Standard Time, the island nation of Haiti was struck by a 7.0 magnitude earthquake. Although the epicenter of the quake was just outside the Haitian capital of Port-au-Prince, the capital city was devastated by widespread destruction. This was the country's most severe earthquake in 200 years, with a death toll that may reach 200,000.

Haiti occupies the western third of the island known as Hispaniola in the West Indies and is comparable in size to Maryland. Haiti is the poorest country in the Americas and the least developed by most economic standards. It is estimated that about 80% of the population live in poverty, with most Haitians surviving on $2 per day or less.[1]

Ninety percent of Haitian children have waterborne diseases and intestinal parasites. According to the World Health Organization, even before the earthquake, nearly one-half of deaths were from HIV/AIDS (approximately 5% of Haiti's adult population is infected with HIV), respiratory infections, meningitis, and diarrheal diseases (including cholera and typhoid).[2] Therefore, in reality, Haiti's health care system was broken before the tragedy. In addition to the already limited health care system, a lack of infrastructure and rescue services severely hindered rescue and relief efforts. A lack of secondary roads in good condition resulted in many roads and bridges being difficult, if not impossible, to travel.

Despite these issues, Haiti's major strength is its people. It was the first independent nation in Latin America and the first black-led republic in the world.[3] The strong will of its people is evidenced by their willingness to fight to survive and help each other. This strong will was displayed by children as well as adults. An example involves a 5-year-old girl who had an external fixator placed on her lower leg. During her recovery, she slept on the floor of our treatment tent. Despite having to deal with her own considerable injuries, she befriended and gave love and comfort to a 3-year-old girl with no family who had undergone an amputation of her right foot.

I am a member of the Missouri 1 Disaster Medical Assistance Team (DMAT), and on January 23, 2010, I was deployed to Port-au-Prince, Haiti, and assigned to the Haitian Group for the Study of Kaposi's Sarcoma and Opportunistic Infections (GHESKIO) Field Hospital. GHESKIO was created in the early 1980s, when a group of Haitian clinicians noticed a growing number of patients dying from Kaposi's sarcoma and unusual opportunistic infections. In 1982 they founded GHESKIO. In 1983 *The New England Journal of Medicine* published their experiences, documenting the first cases of AIDS in a developing country. In 2000 the Haitian government designated GHESKIO as a "public utility," a status reserved for institutions "essential to the welfare of the Haitian people" such as the Red Cross. GHESKIO sustained moderate damage during the earthquake but was still able to provide care for the Haitian people (Figure 1).

There are approximately 50 DMAT teams in the United States comprising physicians, nurse practitioners, physician assistants, registered nurses, medics, respiratory therapists, pharmacists, mental health workers, communication specialists, and logistics experts.

DMATs operate within the National Disaster Medical System and were created in 1983 to address the need for a coordinated response to the nation's health care system during disasters that overwhelmed an area's health care infrastructure. This was an historic occasion because it was the first time in the history of the National Disaster Medical System that teams were deployed internationally.

The 35-member Missouri 1 DMAT departed from Lambert–St Louis International Airport early Saturday morning, January 23 for Atlanta, Georgia, which served as our staging area. During our brief stay in Atlanta, we completed fit testing and received any needed vaccines and medications. Unsure of what lay ahead, we left for Haiti at 2 AM Monday morning by private jet. We landed in Port-au-Prince around midday to a bright, sunny day with extreme humidity. Troops and supplies were all over the tarmac. Several hours were spent at the airport awaiting transportation.

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FIGURE 1

ICU at Camp GHESKIO. This figure is available in color and as a full-page document at www.jenonline.org.

FIGURE 2

Patients waiting in line to be seen. This figure is available in color and as a full-page document at www.jenonline.org.

An older-model, non–air-conditioned bus arrived, and we stowed our gear and boarded the bus for the trip to GHESKIO. We were warned to be prepared for intense smells and that we may see dead bodies along the road. Security was provided by the 82nd Airborne Division of the US Army. We were very blessed to have Chaplain Jim from the Iowa 1 DMAT with us because many of the sights we encountered were emotionally difficult. For the next 2 weeks, he helped us see the best in every situation and he even helped out with patient care.

Once we arrived at GHESKIO, we were greeted by the International Medical-Surgical Response Team–East staff. The International Medical-Surgical Response Team is a specialized team of highly trained personnel and is equipped to establish a fully capable freestanding surgical field hospital. Our field hospital was the most sophisticated hospital in operation on the island. It consisted of an operating suite, a 6- to 8-bed ICU, a major tent, a minor tent, a procedure tent, a pediatric treatment area, an isolation area for several tuberculosis patients, and a very active triage area and strike team (Figure 2).

A "strike team" is composed of staff who are assigned to respond to critical patient incidents, assist as needed, and then return to their other assigned areas. The strike team proved invaluable on many occasions when the ICU was inundated with unplanned, unscheduled patients such as the multiple gunshot wound victims who arrived the first day we were there.

The team's living accommodations consisted of sleeping outside on a cot with a mosquito net. However, thanks to our logistics staff, we had electricity and fans in the patient treatment areas. The male staff outnumbered the female staff, and a bathroom sink ended up being used as a urinal. The female staff had a non-flushing toilet that could not tolerate any toilet paper in the system without clogging up and overflowing. We soon came to the conclusion that a non-flushing toilet was better than no toilet at all.

In the first few days after our arrival, aftershocks occurred fairly frequently, but our team was prepared for them because aftershocks were discussed at our staging area in the United States prior to deployment. A procedure was in place whereby the safety officer would blow a whistle 3 times any time there was an aftershock. This was a signal to report to a designated spot where roll call was conducted to account for all team members with the exception of the 1 nurse who was designated to remain with the patients. One of the strongest aftershocks occurring while we were there registered 5.1. Each aftershock served to remind our patients of what had occurred days before, and we treated many of them for anxiety and insomnia.

One of Haiti's prisons was destroyed during the quake. Many prisoners had freed themselves and were living among the other Haitian people. Living conditions were desperate and tensions were high. People tried to protect what they had left any way they could, sometimes resulting in violence. Shortly after arrival, we received 3 young male victims of gunshot wounds. These were the first of many penetrating wounds that we would treat over the next few weeks. This served as an unofficial orientation which allowed our team to observe the strike team and surgeons