

View From the GROUND



Photos by Philip Suarez



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NYC Medics witnessed the aftermath of the Haitian earthquake first hand. Here's what others hoping to help after international disasters should know.

On January 12, at 4:53 p.m., a 7.0-magnitude earthquake violently shook the densely populated capital and surrounding areas of Haiti, forever changing an already ravaged country into what many described as sheer apocalypse.

As the world reacted to Haiti's need, NYC Medics, an international relief organization, mobilized and within five days had placed two teams on the ground in the country. Over the next eight weeks, NYC Medics deployed a total of seven teams—nearly 60 paramedics, nurses, physician assistants and doctors. During this initial response to the earthquake, NYC Medics treated roughly 20,000 patients.

BACKGROUND

NYC Medics is a not-for-profit organization created in the wake of the 2005 Pakistan earthquake. This group of paramedics, physicians and PAs had witnessed disaster before: As New Yorkers, we experienced the tragedy of September 11, 2001, directly; in 2005 many of us served the victims of Hurricane Katrina. The Pakistan quake struck a personal note, and even as headlines about the tragedy disappeared from our nation's newspapers, the team's founders responded. They collected donations, food, medicine and courage before heading on the long journey to Pakistan, where the organization was born.

EMSEXPO

The authors will discuss NYC Medics' operations in Haiti in a special presentation at EMS EXPO 2010, Sept. 27–Oct. 1 at the Dallas Convention Center, Dallas, TX.

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Since then NYC Medics has struggled to find its place in the world of disaster relief. As the organization matures, its mission has become clearer: to fill the gap in the immediate aftermath of disasters when local resources are overwhelmed and large organizations are just beginning to gear up their long-term efforts. The NYC Medics model relies on being light and flexible to rapidly access patients who would otherwise be isolated by injury, illness or geography. When the earthquake struck Haiti, NYC Medics put years of planning into action.

“Our partnership with the U.S. Army was symbiotic.”

INITIAL ASSESSMENT

One of the most important facets of responding effectively to disasters is having the necessary information. For NYC Medics, information from the Global Disaster Alert and Coordination System (GDACS) and confirmations from reliable partners on the ground, plus the plea for international assistance from the government of Haiti, were enough to warrant deployment of a Field Assessment Team and a Rapid Surgical Response Team.

Initial personnel departing for Haiti consisted of three people with international experience in disaster responses, emergency management, public health, delivery of emergent medical care and interagency collaboration. Commercial flights could not fly directly into Port-au-Prince, so organizations arrived through the Dominican Republic via an eight-hour drive from Santo Domingo.

Transportation was complex: Local drivers entering Haiti were required to hold certifications in both countries and be familiar enough with the streets of Haiti to get around without directions and street signs, and through road closures and detours during both day and night. Drivers speaking both

Spanish and French were a commodity. Thankfully, passing through the many checkpoints required only a nod from officials for relief workers.

You could feel the Haitian border not only by the changes in language, time zone and several border gates, but even more so by the distant, fatigued and traumatized looks on the faces of people trying to leave. The mass destruction, loss of life, hunger and desperation seen on entering Port-au-Prince are not easily explained. Take everything you've seen on television, read in the newspaper or heard on the radio, and multiply it by 10. Sections of the city looked like they were bombed out from air raids, with partially standing skeleton buildings, rubble and debris strewn through the streets, vehicles twisted like tin cans and some areas still burning. Acrid smoke and dust hung in the air, as did the smells of sewage and decay. Bodies were still being unearthed and placed in the streets.

People were fervently occupied with finding family members, sifting through their homes and searching for water and food. They were also coming to terms with what was left of their lives. Finally, waiting preoccupied the day, as there was nothing left to do but survive on the side of the road or in makeshift tent camps crowded by thousands.

COORDINATION

Our assessment team had to determine where, based on its mission and capabilities, the organization could be most effective. Typically, relief organizations collaborate among themselves based on the particular needs of the event, building on the strengths of each group. In this experience, collaboration proved difficult.

Our team registered and participated in the U.N. Office for the Coordination

of Humanitarian Affairs' cluster system, a method for grouping U.N. agencies, nongovernmental organizations and other international organizations around a sector or service provided during a humanitarian crisis. Several clusters met, bringing together groups such as health, sanitation, water, rescue, roads and engineering. As the response went on, the clusters divided into appropriate subgroups: The health group, for instance, divided into hospitals, mobile emergent medical clinics and medical supplies.

With coordination, different relief organizations could concentrate together on the effective distribution of appropriate and mission-specific services under the direction of the Haitian Ministry of Health and through the assistance and guidance of the U.N. At the beginning of operations, 34 organizations had registered. By the end of week two, there were more than 240.

As with all disasters, health system needs evolved from emergent to primary and then to preventive care. The size of the disaster, resources available and coordination efforts dictate how long each phase can take. Primary emergent initiatives included facilitating the operational readiness of field hospitals, evaluating and utilizing existing hospitals as possible, placing personnel for lifesaving surgical interventions in both, and sending out emergent mobile medical clinics within the city, outskirts and countryside.

As needs migrated, so did organizations and collaborations. Disaster situations require both short- and long-term missions in specific niches. For example, an Israeli surgical field hospital was operational within days of the earthquake and treated tens of thousands of people. Organizations brought patients there day and night. Once primary care became the predominant need, the Israelis' mission goals were completed, and they left to make room for the next set of organizations.

PREPARING FOR THE CLINICAL TEAM

In a disaster of this magnitude, organizations must be self-sufficient. Requiring external assistance with

safety and security, shelter, food, water, transportation, supplies or communications is counterproductive and takes resources from those in need. Relief teams have to arrive ready to carry out their mission under their own power.

Safety is a major concern, but specifics are dictated by the type of disaster, climate, geography, politics, culture and human needs. For example, in the absence of food and water, crowds could potentially swell from tens to thousands in minutes if people thought your organization had any. Teams could not give out even a bottle of water, lest the vehicle be swarmed or the receiver mobbed; teams could only direct people to distribution sites. Although NYC Medics did not encounter any hostility, organizations must always prepare for the possibility by coordinating with local and international military or security forces in the region. Other safety concerns included aftershocks, the humid and hot environment, and tropical diseases. Further, the physical and emotional stress from such a situation cannot be underestimated.

Many relief organization teams stayed in tent shelters at the airport or throughout the city in secure areas staffed with 24-hour guards. People could not stay indoors, as there was danger of collapse. Many slept in roadways protected by rubble or in available

open areas away from buildings.

Initially cell phones rarely worked and communications by satellite phone were tense. SMS texting sporadically succeeded but was unreliable, as messages were lost, bundled or delayed by hours. This improved over time. Coordinating communication among organizations, the assessment team, the clinical teams and the U.S. base was a full-time job.

One of the most frustrating challenges was the time it took to accomplish anything. Visiting a potential deployment site or heading to a meeting with a collaborating organization could consume half a day. Road conditions, traffic jams, meeting backlogs, poor communications capabilities and multitasking in several directions at once were some of the main impediments. Prioritizing needs helped determine when to wait and when to push forward. Anything could change in a moment as the situation on the ground changed.

To mitigate such fluidity, a tremendous amount of strategy went into planning, so the clinical team could function efficiently. Each day began with the previous day's planning and added another layer to keep it running smoothly as possible. Many organizations used local "fixers" to accommodate such needs.

It was through a fixer that our team



had a place to stay that had a generator working part of the day, running water and an enclosed compound with security and transportation to clinic sites. Teams did not stay in hotels, but in tents and sleeping bags on a concrete driveway of a community leader's fractured house. It was there the first missions began.

CLINICAL TEAM

Our first clinical team initially ran an impromptu neighborhood clinic and then transitioned to an area identified by local leaders as in need. This was Cite Militaire, a poor and densely populated section adjacent to one of the largest slum areas, Cite Soleil.

Our team was greeted with curiosity, as many of the newly displaced came out of their hastily erected tents to see what was going on. Residents and victims quickly joined in, carrying gear to a courtyard at the back of the property. Volunteer translators appeared and offered their services, and injured people began arriving in the arms of loved ones. Word spread quickly, and before the clinic was set up, lines of patients had formed.

The site was well contained, allowing controlled access and egress of patients via a registration desk, specific treatment areas, a waiting area and a dispensary. An early plan to use partially destroyed classrooms surrounding the courtyard worked until an aftershock forced the clinic outdoors. In the courtyard treatment areas were subdivided into specialized wound care, general trauma, critical care and adult and pediatric medical. Extra supplies, food and water were stored within the secured dispensary.

In the first two days, the clinic treated roughly 500 patients a day and worked well past sunset. Even as the lines grew, order was fairly well maintained, and no

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Lessons Learned

- While all deployments require significant preparation of administrative, leadership, assessment and field teams, each deployment hosts its own dynamic variables as well. Organizations and their personnel must be flexible and adaptable to overcome such challenges. Continuous evaluation, strategizing and communication among the field, home and leadership teams is necessary.
- Personnel cannot underestimate how their environment can affect them. There needs to be continuous monitoring of individuals, teams, stress and dynamics. Debriefings are an important part of the day.
- Early participation with other organizations can increase efficiency, but event evolution may cause organizational mission drift. If an organization desires to continue operations in a disaster area, it must be flexible enough to do so.
- Teams must allot more time than is usually necessary to accomplish tasks.
- Space out experienced members among teams for greater ease in adapting to situations and changes in environment and mission.
- Local leaders and volunteers know what is happening where, how, when and why. Utilize the community that directly benefits from its own involvement.
- An organization's niche fills a need in the greater system. Seek relationships that are symbiotic for greater effectiveness and efficiency.
- Be prepared with the right equipment and seek potential resupply channels before resources are depleted.

“Teams cannot overburden themselves with supplies unlikely to be used.”

patient was turned away. On the third day, as the needs decreased in the area, the search began for other locations to serve, which is when we encountered the 82nd Airborne.

Our partnership with the U.S. Army was symbiotic: They were surveying tent camps without the ability to provide medical care, and NYC Medics could provide medical care but needed the locations of and access to the tent camps. Teams split into two smaller groups to double the effectiveness of daily missions. Each day, each team visited 3–6 tent camps. The military located, mapped and assessed “places of gathering” for medical and food/water needs, and within the same day to the next 24 hours, site visits were arranged. Community leaders within sites were very helpful for control and identification of the seriously wounded or ill within the site.

Within the tent camps military personnel provided security and support to the medical teams as needed. Treatment of the ill and injured was performed under overhangs or trees, next to walls or vehicles or within shelters. Clinics would last for 30–60 minutes, followed by a walk-through of the camp to further identify patients who could not ambulate. Teams always found patients in need.

INJURIES, EQUIPMENT

Just as it is important to be prepared for expected injuries and illnesses, teams cannot overburden themselves with supplies unlikely to be used. In Haiti, the most common injuries were soft tissue trauma, crush injuries and bone fractures. Wounds were often dirty and infected, requiring extensive debriding prior to bandaging. Local anesthetics, debriding equipment, betadine, bandaging supplies and antibiotics were needed most. Suspected fractures were diagnosed by traditional physical exams and splinted or casted as necessary using fiberglass, since it required much less water than plaster.

Whereas referrals to definitive care would be the normal standard, this was not possible during the acute response phase. Functioning stationary and surgical field hospitals had high triage

standards: Closed femur and pelvic fractures were not considered for surgery. Such patients were treated by casting and had to wait days for admission. Common medical conditions included pain management, dehydration, upper respiratory infections and flulike symptoms. Many people were treated with Tylenol, oral rehydration fluids and oral antibiotics, respectively.

Supplies not extensively needed included sutures, IV supplies and airway equipment. Most soft tissue injuries were a few days old and at too high of an infection risk to close. Aside from the orthopedic and trauma cases encountered, most severely ill or injured patients had either been treated or deceased within the first few days of the disaster. Responsible donating is important for any organization, as it reduces waste of unusable donations. While thousands of dollars of useful in-kind donations were received, some, such as bovine skin grafts, were impractical and had to be refused.

Other challenges inherent to disaster situations are exposure to the elements, crowds and animals/insects/disease. Luckily, there was no rain during the mission; however, shade was in short supply, and temperatures often reached over 100°F. Natural barriers, tarps and careful placement of clinic areas helped mitigate such issues. Stray animals rarely presented a problem, but they do create risks for rabies, infestations and potential attacks. Insects provided a unique problem outside the anticipated malaria and dengue concerns: Keeping flies out of wounds while cleaning and bandaging was a constant challenge.

The lack of dependable follow-up was a perpetual issue and partially solved by educating patients and providing supplies for cleaning and redressing, information about signs and symptoms suggestive of infection, and instructions to seek further care as needed.

CARE FROM WITHIN

The nature of NYC Medics' small and mobile teams necessitates operating from within the communities needing help. Accordingly, team members face similar risks as everyone else. Daily mission planning must account for such



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situations. Vaccinations and malaria prophylaxis depend on the general mission area, but potable water purification and dried food are necessities. Some local foods and bottled beverages are safe, but access is never guaranteed. Additionally, if international staff rely on local foods, this eventually leads to price inflation, which can accentuate scarcity.

Success is the result of many people at many levels working together with the end in mind. How can we take care of a community in need that has not been reached? It takes not only organization, planning, communication and funding, but experience, adaptability, improvisation, flexibility and commitment.

For more on NYC Medics, visit www.nycmedics.org. ■

David A. Violante, MPH, EMT-P, is a member of NYC Medics and has served on missions to Haiti and Pakistan. He is assistant director of EMS for the Arlington Fire District in Poughkeepsie, NY. Reach him at david.violante@gmail.com.

Sean Kivlehan, EMT-P, is a member of NYC Medics and has served on missions to Haiti and Pakistan. He works as a paramedic and teaches EMS courses at St. Vincent's Hospital in New York City. Reach him at sean.kivlehan@gmail.com.

Ruben Flores, EMT-P, is the cofounder and director of operations for NYC Medics. He previously worked as a paramedic in the New York City EMS 9-1-1 system, and with the Mexican Red Cross. Reach him at ruben@nycmedics.org.



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