

HELPING KENYA PREPARE TO RESPOND TO EMERGENCIES: A 10-YEAR RETROSPECTIVE

By Laureen Reagan

In the early morning hours of August 7, 1998, terrorists coordinated nearly simultaneous vehicle bomb attacks on the U.S. embassies in Dar es Salaam, Tanzania, and Nairobi, Kenya, killing a total of 247 people. In Kenya, the explosions killed 213 people, including 12 U.S. citizens and 32 Foreign Service Nationals. Nearly 5,000 people, mostly non-Americans, were injured. The U.S. Embassy and an estimated 105 buildings nearby suffered damages of more than \$40 million.

In response to the bombing, OFDA rapidly provided funds through the U.S. Embassy in Nairobi for medical supplies and trauma counseling. In addition, OFDA arranged for the immediate deployment of a 63-member urban search and rescue (USAR) team from the Fairfax County, Virginia, Fire and Rescue Department, which arrived in Kenya on August 9. Over the course of eight days, the USAR team, local volunteers, and additional rescue teams from France and Israel assisted in the recovery of 50 bodies. Although teams eventually rescued many people, international teams did not arrive until up to 48 hours after the bombing.

During the initial 48 hours, local first responders, civil authorities, staff members from the Kenya Red Cross, and volunteers worked at the site. Despite laudable efforts, a dearth of basic first aid supplies, specialty equipment, and training handicapped local responders. Even responders affiliated with emergency service transport units lacked the technical expertise necessary to treat simple soft-tissue injuries and more complex and multi-injury casualties.

“It was total chaos; we did the best that we could...”

Itote “Tosh” Waruhiu, First Responder to the U.S. Embassy bombing and subsequent graduate of the OFDA-funded International Medical Corps (IMC) Emergency Medical Technician (EMT) course

In the aftermath of the bombing, U.S. and Kenyan government authorities, non-governmental organization staff, and members of Nairobi’s private health sector reviewed the state of Kenya’s emergency service infrastructure. The bombing exposed significant weaknesses in local emergency response and national disaster preparedness. While Kenyan first responders, civil authorities, and the Kenyan public acted quickly and commendably, the disaster exceeded the response capacity of Nairobi’s emergency response network. Deficiencies included a lack of prepositioned disaster supplies, an inadequate emergency communication network, an insufficiently coordinated response by civil authorities and emergency services, and a general paucity of technical expertise among first responders in managing, triaging, stabilizing, and transporting multi-injury casualties. Furthermore, the bombing of the U.S. Embassy did not constitute the only emergency or disaster incident Kenyans experienced. At the time of the bombing, technological emergencies, including road traffic, rail, and industrial accidents, were commonplace in the country, which had one of the worst injury-induced premature mortality rates in the world.

TRAINING

“I was used to facing many challenges but had no confidence in handling emergencies.”

Alice Ngure, former emergency unit nurse at Gertrude’s Children’s hospital and graduate of the OFDA-funded IMC EMT course

In 1998 and 1999, OFDA provided nearly \$294,000 to support an 18-month IMC program to enhance emergency medical services (EMS) in Kenya. A formal branch of emergency services dedicated to providing out-of-hospital acute medical care and transport, EMS consist of first responders, including police, firefighters, and EMTs, who are trained to perform a wide range of emergency care and transport procedures.

The OFDA-supported program provided training to 40 pre-hospital medical providers, firefighters, and police from many of the organizations and agencies that responded to the U.S. Embassy bombing. Many of the students had been first responders at the 1998 bomb site and, inspired by the training and professionalism displayed by international rescue teams, desired to create the same capacity for emergency response in Kenya. IMC utilized the American Academy of Orthopedic Surgeons Emergency Medical Technician-Basic curriculum, comprising 180 classroom theory hours and 80 classroom and workplace practical hours. All 40 students graduated, becoming the first formally trained EMTs in east and central Africa. Following successful completion of the course, most students went on to work for ambulance companies, at local hospitals, or in other public services in Kenya.

In 2000, USAID/Kenya funded a 22-month IMC program focused on further enhancing emergency response capacity in Kenya through the continued training of EMTs and the training of trainers. In November 2000, IMC conducted an EMT refresher course that included advanced life support components. Of the 40 EMTs trained in the 1998/1999 OFDA-funded program, 24 returned to complete and pass the EMT refresher course. A select number of refresher course graduates attended additional trainings as EMT instructors, community emergency response team instructors, and first aid instructors.

ACHIEVING SUSTAINABILITY

“[The training] opened up my thinking and I realized that we had a lot to do to bring Kenyan disaster response up to speed.”

Itote “Tosh” Waruhiu, graduate of the 1998/1999 OFDA-funded IMC EMT course and KCEMT volunteer trainer

When USAID/Kenya concluded funding for the IMC program in 2002, the Government of Kenya (GoK) had not formally recognized EMTs or enacted legislation to regulate EMS in Kenya. Recognizing the need to continue to support and improve emergency response in Kenya, a group of highly motivated graduates of the 1998/1999 OFDA-funded EMT course capitalized on the momentum created during the refresher training to develop the Kenya Council for Emergency Medical Technicians (KCEMT). Organized in 2004 and formally established in 2008, KCEMT acts as an independent body to promote standards of practice, ensure the availability of high-quality pre-hospital care, and represent the interests of EMTs outside the workplace. KCEMT comprises volunteer members from ambulance, fire, and rescue services; hospitals; and other health and emergency management organizations. Recognizing that EMTs require formal training and certification, KCEMT has also become the sole professional body to set standards, regulate EMS training, and lobby for formal recognition of EMTs in Kenya.

Between 2004 and 2008, KCEMT provided informal EMS quality improvement and refresher training and conducted workshops to improve standards of practice. By October 2006, KCEMT had trained more than 300 EMS professionals in resuscitation procedures in accordance with updated American Heart Association guidelines. KCEMT also provided refresher training and instructor training to nearly 100 previously trained EMTs. In addition, KCEMT adapted existing EMT, EMS instructor, and Incident Command System (ICS) curricula for use in the Kenyan context. Due to the long transport times typical of Kenyan ambulance deployments, KCEMT recommended that all ambulances in Kenya carry equipment to support intravenous therapy and advanced cardiac life support (ACLS), and the organization included ACLS and intravenous therapy training in all EMT curricula.

KCEMT also formed a legal committee to draft a guidance document on the establishment of an Ambulance Act to regulate and standardize ambulance services in Kenya. Prior to 1998, ambulance services lacked regulation, and in many cases the purchase of a van was sufficient to provide ambulance services. The KCEMT legal committee continues to lobby the government for approval of the Ambulance Act to ensure that ambulance services are a reliable tool with reasonable response times and that all workers on an ambulance are adequately trained to save lives.

Since the organization's official inception, KCEMT has provided training on ICS, a standardized, on-scene, all-hazard incident management protocol. ICS provides a flexible common framework for multiple actors to work together effectively and has been adopted by countries around the world to respond to emergencies. Since June 2008, KCEMT has trained and certified approximately 1,800 managers of first responders, including ambulance, military, police, and fire services, as well as district and provincial administrative and government officials.

Following official GoK registration and GoK Ministry of Health and accreditation of KCEMT curricula in 2008, KCEMT trained the organization's first class of 38 EMTs. KCEMT volunteers, including many graduates of the 1998/1999 OFDA-funded EMT course, conducted the nine-month training ending in July 2009.

While supported primarily through member contributions, KCEMT has also sought and obtained local and international donations to fund the organization's activities and to purchase EMT training materials, including medical equipment. KCEMT trainers volunteer personal time to teach, and students participating in EMT training are self-funded.

During the past five years, KCEMT has significantly advanced and improved emergency response not only in Kenya, but also throughout the region. As a result of KCEMT advocacy and sensitization training, police carry emergency contact cards and are more likely to call for an ambulance during an emergency. In addition, through joint training, KCEMT has improved working relationships and integration between private ambulance companies and the Kenya Red Cross, thus improving emergency response and coordination. KCEMT has become well known regionally for the organization's local approach to regulation and professionalization of pre-hospital emergency care and disaster response. In March and April 2009, at the request of local authorities, KCEMT trainers traveled to Uganda and trained 74 local administrators and disaster response officers in ICS procedures. At the invitation of local organizations, KCEMT representatives have also visited Rwanda and Tanzania to explore the possibility of expanding EMS training into both countries.

TEN YEARS LATER

"It is my hope that in the near future Kenya and Africa at large will be able to handle emergencies effectively, efficiently, and independently."

Alice Ngure, graduate of the 1998/1999 OFDA-funded EMT course and KCEMT volunteer trainer

Since 1999, when OFDA concluded funding for EMS training in Kenya, approximately 25 OFDA-trained EMTs have assumed leadership roles in national disaster management organizations, including KCEMT, and are currently conducting training in Kenya and throughout East Africa using local resources. In total, KCEMT volunteers have trained approximately 184 people as EMTs and more than 1,800 local administrators and disaster response professionals in ICS procedures. Hundreds more have participated in quality improvement and refresher training since the original OFDA initiative began in 1998. Emergency responders continue to provide life-saving services for people in Kenya including during the 2008 post-election violence, recent oil tanker fires, and road accidents. At each disaster site, well-trained first responders and EMTs work toward reducing response times, improving coordination, and providing higher quality patient care, thus improving Kenya's capacity to handle emergencies effectively, efficiently, and independently.

Photos and text boxes

Caroline Miring'u, the first woman to work in one of the few public ambulance companies in Kenya, felt and heard the bomb explode on August 7. She and her colleagues were among the first responders to the disaster site. Following six grueling days working in the rubble to rescue and recover victims of the bomb blast, Caroline reflected that although local responders had the desire, they lacked the capacity in terms of equipment and training to handle a mass casualty incident. When Caroline heard of the OFDA-funded EMT training, she eagerly applied, attended, and graduated, becoming one of the first formally trained EMTs in Kenya.



EMT students train in ambulances similar to the ambulance pictured above (Courtesy of IMC)



KCEMT instructors train EMT students in life-saving techniques (Courtesy of KCEMT).



Three students in the first class of emergency responders in 1999 gather medical equipment for class (Courtesy of IMC).



KCEMT volunteers provide ICS training to district and provincial authorities in Kenya who role-play in a daylong disaster simulation (Photo by Lauren Reagan, USAID).



EMT students receive diplomas after successfully completing the KCEMT course (Courtesy of KCEMT).