

## International Humanitarian Assistance: Where Do Emergency Physicians Belong?

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Humanitarian emergencies include large-scale natural disasters and human-generated disasters such as war, terrorism, and techno-industrial disasters. Natural and human-generated events are reaching the scale of humanitarian emergency with increasing frequency and severity. Natural events are ever more devastating due to a number of factors, including explosive population growth, urbanization, poverty, and increasing economic and social disparities. Armed conflicts have increasingly directly involved civilians through violence, displacement, human rights abuses, and worsening economic and health conditions [1].

Warfare in the post-Cold War era has been characterized by civil and regional conflicts without superpower arbitration arising out of political disenfranchisement, economic disparities, and ethnocentric and micro-national aspirations. The common outcomes of war and civil instability are effects on vulnerable populations, including economic collapse, extreme poverty, breakdown in the national public health infrastructure, and large-scale displacement and mass migration. The net result is the creation of subpopulations vulnerable to famine, communicable disease outbreaks, noncommunicable disease exacerbations, and a wide range of human rights abuses [2].

During the past two decades, there has been a tremendous investment in humanitarian assistance and the ability to intervene in disaster settings.

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Much of this investment has been in the delivery of food aid, water and sanitation facilities, shelter, and immediate health care. In addition, there have been significant efforts to develop standards and quality indicators in humanitarian assistance and to raise the level of accountability for humanitarian organizations and field personnel [3,4].

As the field of humanitarian aid expands professionally, so has the role of emergency physicians (EPs) in international relief and humanitarian assistance (HA). EPs can bring a variety of skills to the field of international aid, but there remains a number of misconceptions about the nature of humanitarian relief and the role of curative health providers in the management of disasters. This article discusses the changing nature of international relief and the roles for EPs in the field of HA.

### **Modern conflict and the humanitarian environment**

Humanitarian emergencies, including the human effects of war and disaster, have changed in character and scope in the last two decades. Many factors contribute to the way HA has been delivered over the past decade. Some relate to geopolitical dynamics of conflict, whereas others are due to the evolution of HA as a profession and science. The last decade has seen changes in the following phenomena.

#### *Increase in violent regional ethnic conflicts*

As the Cold War era ended, the new world-order quickly gave rise to a variety of ethnic tensions devoid of superpower arbitration. In the 1990s, civil conflicts erupted in the Balkans, Central Asia, the Middle East, and throughout Africa. In 2002, the number of armed conflicts recorded worldwide was down to 31 from a peak in the early post-Cold War years [5]. The vast majority of these conflicts are intra-state struggles of varying intensity and for a varying mix of liberation, control of valuable resources, or local power. They are often labeled and mislabeled as ethnic or religious wars [6]. These contrast with previous international cross-border conflicts often launched as “proxy” wars between the United States, the Soviet Union, and other superpowers and neocolonialists. The net result of modern civil conflict has been massive-scale refugee emergencies and public health disasters. Recent large-scale relief efforts include those in East Timor, Somalia, Sudan, Liberia, Sierra Leone, Guinea, Mozambique, Rwanda, Burundi, Democratic Republic of Congo, Chechnya, Colombia, Honduras, the Former Yugoslav Republics, Afghanistan, and northern Iraq. Emerging crises are predicted in Africa, the Middle East, Northern Caucasus, and Central Asia.

#### *Civilians as targets*

The Geneva Conventions, International Humanitarian Laws, and International Human Rights Laws are intended to define and defend the

rights and roles of combatants and noncombatants. Conflicts are increasingly conducted as guerilla warfare and terrorism with at best little regard for, and frequently conscious disregard of, the principles embodied in these international codes. Civilians are frequently specifically targeted with direct violence leading to death or permanent disability or driven from their homes as a part of specific tactics of territorial and resource acquisition often at the root of current conflicts. Ghojarah [7] examined World Health Organization (WHO) Burden of Disease data and found that the negative health effects of conflicts persist many years after the conflict has ended. Women and children suffer disproportionately more [7]. In the 2000 WHO Burden of Disease assessment, wars were calculated to account for 0.7% of the global mortality and disability burden for that year [8]. Humanitarian aid workers have become not only collateral casualties to conflicts but specific targets of aggression or abduction (see below).

#### *Urbanization and larger populations at risk*

The developed and developing worlds are urbanizing at a rapid rate. Much of this urbanization is taking place in zones specifically at risk for natural disasters—low-lying coasts, flood plains, and industrial regions. The growth of megacities such as Mexico City, Sao Paulo, Shanghai, Bombay, and Lagos, with populations of over 15 million, stem largely from impoverished country dwellers moving to cities for financial opportunities who become impoverished city dwellers occupying sprawling “septic fringes”—surrounding endless slums with no water or sanitation infrastructure. These areas are prone to manmade and natural disasters, such as epidemics or geophysical events, and can lead to tremendous health effects [9]. Urban warfare, such as conflicts in Baghdad, Sarajevo, Grozny, or Jenin, can lead to significant civilian casualties. Urban refugees have less access to emergency assistance, and few organizations and individuals have experience in managing health emergencies in urban populations [10].

#### *Modern combatants*

Many modern conflicts have become less conventional in terms of the identification of combatants and their behavior toward civilians. Many combatant groups do not wear clearly demarcated uniforms and hide their weapons. In many cases, irregular militaries don symbols such as the Red Cross to hide behind a traditionally neutral symbol. Such practices lead to increased risk for bona fide aid workers. The Red Cross has become, in some conflicts, a military target. These paramilitaries, not legally recognized as representing official state-supported militaries, notoriously operate without regard to the Geneva Conventions [11].

### *Change in the conduct of war*

The incidence of violence and acts of amputation, rape, and torture on civilian populations has escalated in the past two decades. Systematic genocide and ethnic cleansing are as commonplace today as ever before in human history. Antipersonnel land mines remain a threat to noncombatants despite a growing number of conventions [12] aimed to prevent their production and use [13–15]. Even though there are thought to be over 100 million land mines distributed across Asia, the Middle East, the Balkans, and South America [13], land mine production continues by major developed countries, including the United States [14]. Over 10,000 civilians from largely underdeveloped nations, 23% of them children, suffered extremity loss injuries from antipersonnel ordnance in 2002 [15]. Land mines exert their effect not only through direct injury, but also through secondary limitations on the circulation of food, clean water, and health care [16].

### *Proliferation of nongovernmental organizations*

As natural and human-generated disasters increase in scope, frequency, severity, and complexity, the international response has exponentially increased. Nongovernmental organizations (NGOs), as defined by the World Bank, are private, independent organizations that initiate activities to relieve suffering, promote the interests of the poor, provide basic social services, or undertake community development [17]. In many parts of the world, NGOs can be the only source of life-sustaining aid to those neglected by many central governments; many NGOs have operations that expand to meet certain sectorial needs in a disaster or conflict.

The need for external governments not to be seen as directly intervening in another sovereign territory is one cause for the NGO increase. Government-funded NGOs, generally working from a position of neutrality and impartiality and thus regarded as free of political influence, can gain easier cross-border access and attract less attention and scrutiny than government agencies; as a result, the attraction of major funding from governmental donors has spurred the global growth of NGOs. In other cases, NGOs arise within affected regions (“local NGOs”) in response to a specific conflict or disaster as citizens mobilize to deal with their own problems, often with assistance from sister agencies overseas.

Increased funding has promoted the growth of well-known and well-established international agencies like MSF (Médecins sans Frontières), CARE International (Cooperative for Assistance and Relief Everywhere), IRC (International Rescue Committee), OXFAM, Catholic Relief Services, and World Vision. Hundreds of new smaller organizations have entered the arena of humanitarian emergencies. For example, the growth of registered NGOs in Somalia from 1992 to 2000 was from 40 to 553 [18]. During the 1990s, the larger, more established NGOs honed their skills and gained

a level of professionalism. At the same time, numerous small organizations arose quickly, with many lacking the organizational infrastructure and technical capacity needed for relief and development work, particularly on a larger scale.

### *Increased humanitarian aid worker morbidity and mortality*

Civilian relief workers—in contrast to military peacekeepers or peace enforcers—have suffered increasing morbidity and mortality in the past decade. Sheik et al [19] analyzed 382 aid worker deaths from 1985 to 1998 and reported an increasing death rate relative to peacekeepers. Most aid worker deaths (68%) were intentional and due to aggravated assault, such as being caught in cross-fire or murdered. King [20], in a review of information from 1997 to 2001 databased at ReliefWeb, a project of the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), found that 47% of nonaccidental deaths were due to ambushes. In comparison, traditional risks of working in developing countries, such as motor vehicle crashes (the second leading cause of death), accounted for only 17% of deaths. It follows that humanitarian intervention may be an increasingly dangerous proposition, requiring volunteers to enter the field with a clear understanding of the political scenario and acceptance of the risks.

### *Increased military involvement in conflict settings*

The ethnic cleansing of Bosnians and Kosovars, the genocide of Rwandans, and the famine in Somalia have raised the public interest in invoking Chapters 6 or 7 of the United Nations Charter that call for multilateral military peacekeeping or peace enforcing. Military involvement, whether unilateral or through NATO or United Nations peacekeeping missions, has proven to be beneficial and problematic. The provision of security to allow for the distribution of aid may place relief agencies in the awkward and sometimes dangerous position of being perceived by combatants as lacking neutrality. Recent NGO efforts in Iraq exemplify the perception of ideologic linkage between occupying military forces and relief agencies [21].

### *The “CNN factor” and the role of the media*

Greater media coverage has provided unprecedented attention to humanitarian crises and testimony to the plight of humans in danger. This attention can mobilize public opinion and promote legislative action, but there are significant problems created by highlighting humanitarian crises. Humanitarian agencies increasingly feel pressure to act during disasters whether or not action is warranted because media exposure is key to obtaining donations and grants. The danger of media attention has been the

tendency to focus on emergencies while ignoring the often more costly and more difficult issues of a disaster's effect on long-term rehabilitation and development. As such, the mainstream media risks leading relief agencies and donors away from populations that may be suffering critical public health effects of a disaster or conflict because such problems are chronic, ill defined, and of little interest to a Western audience. The emergency phase of a crisis is often overly emphasized, and high-profile agencies are often highlighted at the expense of essential public health services that cannot be neatly packaged in a sound bite.

### **Defining humanitarian assistance**

Humanitarian relief is usually thought of as the provision of comprehensive assistance for victims of natural disasters such as hurricanes, floods, droughts, cyclones, and earthquakes. However, relief also targets victims of human-made and war-related emergencies—termed “complex humanitarian emergencies” (CHE), indicating an increased level of complexity in providing assistance in politically insecure environments and catastrophic public health emergencies [22]. Conflict-related public emergencies may be further characterized as settings with high levels of violence; ethnic or religious persecution; migration of refugees or internally displaced populations; and some degree of administrative, economic, and political social decay and collapse [23]. The multi-faceted approach of international assistance in CHEs reflects the complexity of operating in a conflict environment.

Core humanitarian aid activities have evolved based on the most likely causes of immediate morbidity and mortality in large, densely packed populations under stress with a nonfunctional or absent public health infrastructure. These activities include the provision of (1) health services (including curative and preventive care), (2) potable water and sanitation, (3) food (basic calories), (4) nutrition (vitamins, etc.), (5) shelter, and (6) logistics/security. An international public health emergency can be defined as a rise in the crude mortality rate significantly above (usually double) the local pre-disaster baseline, typically greater than one death per 10,000 persons per day [22,24]. The main priorities in the provision of humanitarian services are linked to the greatest public health threats. These priorities include those listed in **Box 1**. Clinical services are typically a lesser priority than emergency public health interventions.

There have been significant strides taken in the last decade to define basic requirements for large populations needing emergency assistance. The Humanitarian Charter and Minimum Standards in Disaster Response Program, known as the Sphere Project, was launched in 1997 by a group of humanitarian NGOs and the Red Cross and Red Crescent movement. It is based on two core beliefs: (1) All possible steps should be taken to alleviate

**Box 1. Top 10 priorities for the provision of HA**

1. Initial assessment
2. Measles vaccination
3. Water and sanitation
4. Food and nutrition
5. Shelter and site planning
6. Health care in emergency phase
7. Control of communicable diseases/epidemics
8. Public health surveillance
9. Human resources and training
10. Coordination

human suffering arising out of calamity and conflict, and (2) those affected by disaster have a right to life with dignity and therefore a right to assistance. The Sphere Project sets forth minimum standards in HA and provides field guides and educational materials to assist NGOs in understanding and addressing these core needs [25].

Underlying these activities is a set of core principles upon which HA is offered. All humanitarian organizations adhere to these principles in some form. Table 1 presents the Red Cross fundamental principles, one of the most explicit and extensive sets among HA organizations. These principles grew out of an ideal of basic human rights and their universal application. The ethical imperative of “bearing witness” to egregious atrocities such as torture and genocide challenges the foundational imperative of neutrality, provoking the humanitarian consciences of those who have worked in CHEs. Attention to documenting the effects of human rights violations on public health has led to the preventive field strategy of ensuring the population’s health through the protection and promotion of human rights [26]. The balance between the need to remain neutral, thus preserving access and the responsibility to report human rights abuses (and thereby often sacrifice access), is constantly debated.

*Main actors in humanitarian assistance*

During the past decade, humanitarian agencies have been challenged by explosive and chronic crises around the world. As a result, there has been tremendous growth of financial, human, and material investment in the ability to intervene in disasters. During the 1990s, the global monetary expenditure on HA more than doubled from the decade before. In 1994, global spending on HA peaked at \$7.2 billion [27]. The rapid growth of the humanitarian aid industry in response to the number and complexity of relief interventions has required an increasing pool of expatriate and

Table 1  
Fundamental Principles of the Red Cross

Humanity	Assistance is provided without discrimination. It is aimed to prevent and alleviate human suffering wherever it may be found, to protect life and health and ensure respect for the human being. Aid is to promote mutual understanding, friendship, cooperation and lasting peace amongst all peoples.
Impartiality	Assistance and protection are due to all victims of a conflict no matter the side of a conflict they are on, without regard to race, religion, class, or political affiliation. Aid is given strictly and proportionately according to the need and priority is given to the most urgent cases.
Neutrality	In order to enjoy the confidence of all, humanitarian actors do not take sides and must stand apart from the political issues at stake in a conflict (and avoid commentary of a polarized or political nature), unless the treatment of humans is egregious and silence will result in gross violation of human rights.
Independence	Humanitarian actors remain independent of political or other affiliations whose interests, past actions and policies may impinge on universality and impartiality.
Voluntary service	Relief is provided on a voluntary basis and not prompted in any manner by desire for personal, political or financial gain.
Unity	There can be only one Red Cross or one Red Crescent Society in any one country. It must be open to all. It must carry on its humanitarian work throughout its territory. A National Society can only achieve a reputation for neutrality and impartiality if its staff and volunteers are fully representative.
Universality	The International Red Cross and Red Crescent Movement, in which all Societies have equal status and share equal responsibilities and duties in helping each other, is world-wide.

*From* International Committee of the Red Cross. The fundamental principles of the Red Cross and Red Crescent. 2nd edition. Available at: [www.icrc.org/Web/eng/siteeng0.nsf/htmlall/p0513](http://www.icrc.org/Web/eng/siteeng0.nsf/htmlall/p0513). Accessed May 25, 2004; with permission.

national (local) staff for relief projects around the world. Major participants in HA typically fit into one of the five following categories.

#### *United Nations organizations and international organizations*

These include agencies like the UN High Commissioner for Refugees (UNHCR), the OCHA, the WHO, and the United Nations Children's Fund. These organizations typically provide oversight and coordination and funding for NGOs and program implementers. International organizations such as the International Committee of the Red Cross have a long history of advance field presence.

#### *Governmental organizations*

Various industrialized countries maintain funding agencies dedicated to relief and development. These include the United States Agency for International Development and their relief and disaster branch, the Office of Foreign Disaster Assistance. Other governmental agencies include the

United Kingdom's Department for International Development, the European Commission Humanitarian Aid Office, the Canadian International Development Agency, Danish International Development Agency, and the Australian Agency for International Development. These governmental agencies set priorities for funding and provide financial support for implementing partners through grants and contracts.

#### *Nongovernmental organizations and private voluntary organizations*

These organizations are the primary implementers of relief assistance. They include hundreds of organizations, large and small, local and international, religious and secular, with a range of expertise in any number of field operations including food, nutrition, shelter, governance, human rights, water and sanitation, and health.

#### *Private industry, consulting firms, and academic organizations*

There has been significant growth in the participation of for-profit organizations and consulting firms in HA and postdisaster reconstruction, as demonstrated by the current role of contractors and for-profit firms such as ABT Associates in Iraq [28]. Such organizations maintain groups of highly skilled and experienced field professionals whose expertise runs the gamut from emergency to long-term development and from banking to education to civil society to public health. Similarly, academicians in the various fields of public health, medicine, human rights, engineering, demography, epidemiology, and social sciences give technical assistance, often providing the critical data that inform the UN, government agency, and NGO communities on humanitarian needs and implementation strategies. Universities such as Johns Hopkins, Harvard, Tufts, and Columbia have major programs in various aspects of HA.

#### *Militaries*

Militaries and military alliances have found themselves in the position of offering HA in CHEs, not always with a thorough understanding of the humanitarian imperative or with an understanding of the roles of other humanitarian actors. Nonetheless, various militaries have provided the critical security, communications, and logistic operations necessary for HA to proceed and have provided HA in the form of shelter, food, and public health in Kurdistan (1991), Somalia (1992–1993), the Balkans (1993–1997, 1999), East Timor (1999), Afghanistan, and Iraq. The OCHA Department of Humanitarian Affairs developed a set of guidelines for the use of military assets in nonconflict relief operations known as the “Oslo guidelines” [29].

The necessity for coordination among the various providers of HA mentioned here is important and difficult to accomplish. During a disaster, one UN agency or experienced NGO usually takes the lead coordination role. The OCHA may take a leadership role, but it is often a lead NGO that provides the initial basis for coordination. In the event of mass population

displacement, the UNHCR often leads. During a crisis, OCHA subappoints a lead agency, often NGOs, to coordinate the tactical operation of major relief sectors (eg, health, water and sanitation, etc.). Often other UN agencies may take a sector-specific coordinating and advising role, such as the WHO in the health sector. What functions organizations take in the field is often not dictated by such an orderly process but rather dependent on ad hoc field coordination. In cases where there is military HA involvement, interagency representatives of a Civilian-Military Operations Center should be responsible for coordinating the roles of humanitarian agencies and military operations [30].

### **Emergency physician roles in humanitarian assistance**

Given the frequency of conflicts and natural disasters and the compelling images of public health catastrophes they engender, EPs are drawn to humanitarian work. Additionally, as relief and development activities have focused on rebuilding health systems in post-conflict and post-disaster settings, the specialty of emergency medicine presents itself as a useful construct for any emerging health system. For the latter half of this article, we discuss these micro and macro roles in further detail.

#### *Suitability of emergency physicians for humanitarian assistance*

Given the diversity of humanitarian health issues during a disaster or conflict, there are several qualities intrinsic to EPs that make them useful responders. The broad-based medical knowledge of EPs facilitates overseeing local service providers performing hands-on clinical work—an arrangement often more appropriate than being a front-line service provider. Other qualities unique to EPs that may be useful in humanitarian relief operations are found in [Box 2](#).

#### *Limitations of emergency physicians in humanitarian assistance*

The world of HA is poorly understood by most physicians working in an industrialized society. Neither medical school nor emergency medicine residency prepares EPs for the paradigm shift from emergency medical practice—where curative medicine predominates—to a public health mindset with population-based intervention strategies as described in [Box 1](#). In most large-scale humanitarian emergencies, public health threats such as water, sanitation, malnutrition, and basic infectious disease are the dominant health threats. Without additional public health training, most physicians, including EPs, are likely to have limited understanding of the health priorities in a humanitarian emergency ([Box 3](#)). Conversely, EPs who

**Box 2. Factors supporting EP suitability for HA**

- Tolerance for working in environments of stress, disorganization, uncertainty, and lack of control
- Ability to work with extreme time pressures and urgent deadlines
- Ability to rapidly assess a situation and develop a plan of action
- Expertise in triage, mass casualty, and disaster management
- Ability to depend upon and work within a team environment
- Ability to delegate responsibility to other team members
- Understanding the need for critical incident stress management exercises
- Broad knowledge base of medicine (medical, surgical, pediatric and ob/gyn)
- Ability to deal with social emergencies, dysfunctional healthcare systems, and bureaucratic administrations
- Ability to make difficult decisions with little or no reliable information
- Ability to co-manage vastly differently patients and priorities
- Ability to improvise and adapt solutions to the resources available
- Scheduling flexibility
- Experience in dealing with the media than other specialties
- Ability and experience in dealing with police and law enforcement agencies (akin to militaries)

have had additional training in public health can offer a unique combination of skills to the field, including the ability to provide hands-on medical care, to set clinical and organizational priorities, and to integrate curative health priorities with the larger public health issues. Obtaining additional training can help prepare a physician to provide assistance in disaster epidemiology, population mapping, or surveillance methodology.

It is a general misperception that when a crisis strikes, physicians are needed immediately at the tragedy's epicenter. The most available and most culturally suitable health providers are those local providers who are already on site and practicing. In settings of natural disasters, the international physicians who arrive on site have usually missed the acute phase of the disaster. Relief workers and disaster managers often forget that most of the life-saving action—whether search and rescue or food acquisition—is performed by the communities. They are the survivors and often the heroes, although we rarely acknowledge or publicize their efforts. Even where NGOs deploy in large numbers, the vast majority of NGO staff doing the immunizations and feeding and building are local hires.

**Box 3. Additional knowledge/areas of special expertise in humanitarian settings**

- Training and experience in emergency public health
- Ability to conduct basic population based assessments and systems evaluation
- Comfort practicing under austere conditions of lack of technologic support and basic materials of developed country medical practice
- Ability to recognize and treat common refugee health problems (eg, measles, meningitis, tuberculosis, malnutrition)
- Familiarity with appropriate medications available in developing nations
- Knowledge regarding the political situation in crisis-prone regions
- Ability and desire to commit to long-term assistance with development efforts

*Preparing emergency physicians for humanitarian assistance*

Health professionals seek experiences in HA for a variety of personal reasons, as noted by Woods and Kiely [31], including personal growth, dissatisfaction with traditional medicine, charity, or a sense of adventure. The motivations of those who have dedicated their careers to humanitarian efforts may be described by the former UN Deputy High Commissioner for Refugees, W.R. Smyser, who stated that the humanitarian conscience represents the “idea that human beings deserve to be protected from the effects of war and other forms of conflict. It holds that the human race can and should act on the basis of common innate standards of humanism and decency that people understand and appreciate” [32].

Although motivations for working abroad may vary, there remains a compelling need to understand the consequences of work abroad and to have a realistic expectation of what can and cannot be accomplished by expatriate health workers. Development of long-lasting programs that contribute to the health and well-being of populations requires building partnerships, promoting local capacity, and developing positive relationships with local health providers, a nurturing process that usually requires a prolonged stay of months or years. Limited health interventions, such as mobile clinics or brief curative encounters in makeshift clinical sites, accomplish little and can lead to temporary parallel health structures. On grander scales, misdirected aid has been known to collapse food prices, worsen famine, cause hyperinflation, and support the black-market industry. In short, *primum non nocere*—first, do no harm—applies equally in humanitarian health systems as it does in direct patient care.

Most agencies seeking medical personnel to work in humanitarian emergencies seek those with some previous field experience and preferably with certification in HA or public health training, usually an MPH or MHS degree. Training in primary care, EM, or surgery, although a starting point for providing field care, does not provide the necessary public health training for field work in a large-scale humanitarian crisis. As is true of any medical specialty, international health work requires a certain level of experience and training before one can make a meaningful contribution. Such extra-clinical training is achieved through degree programs, nondegree diploma courses, and certificate programs around the world (Table 2). These concentrate on nonclinical health concepts common to large-scale emergencies and macro-health system changes. These educational programs promote a responsible approach to global health work and engender an understanding that health in the disenfranchised places of the world is directly affected by poverty, poor water and sanitation, violence, and political instability and that all manner of inequity establishes a background from which to truly understand humanitarian aid.

Table 2  
Degree or certificate courses in disaster relief and humanitarian assistance

Course name	Type	Duration	Location
Masters of Public Health	Degree program	1 y (full time)	Multiple (eg, Johns Hopkins, Tulane, Harvard, Columbia Universities)
International Committee of the Red Cross Health Emergencies in Large Populations (HELP)	Certificate	2–3 wk	United States, Switzerland, Canada, Mexico, South Africa, Sweden, Jordan
CHART (Combined Humanitarian Assistance Response Training)		4 d	Multiple locations in the United States
University of Wisconsin Disaster Management Center self-study modules, seminars, workshops, and courses	Various	Various	Correspondence and Madison, WI
International Diploma in Humanitarian Assistance (IDHA)	Diploma	1 mo	Geneva and New York
Columbia University and International Rescue Committee Public Health in Complex Emergencies Training Course		2 wk	New York, NY
Masters of Arts in Humanitarian Assistance	Degree program	1 y	Tufts University, Boston, MA
George Mason Summer Institute on International Humanitarian Action		2 mo	Fairfax, VA

*Adapted from* The Fundamental Principles of the Red Cross and Red Crescent. 2 ed. Geneva; 1996.

If only experienced health providers need apply, then how does one gain experience in HA? Numerous EPs, in academics and in practice, have volunteered or taken staff positions with NGOs, international organizations, and governmental organizations involved in HA, and EPs have played leading roles in major relief and development organizations. Establishing mentoring relationships with physicians and nurses who have gained experience in HA is one option. Another is to finish a Master's level or diploma program and volunteer with a NGO. NGOs value specialist volunteers such as EPs, especially with public health training. Such volunteers backfill critical medical positions in the field because NGOs have a difficult job holding on to intelligent, educated, creative individuals who may burn out or move on to the more lucrative commercial world.

One cannot ignore the more obvious dangers of humanitarian work. A common sense approach to personal field preparedness deserves reiteration. Given that Sheik et al [33] showed nearly a third of deaths were in the first 3 months of duty and one in six deaths occurred in the first month of duty, thorough briefings on a region's culture, demography, values and beliefs (especially in regards to health), health care infrastructure, history (especially history of the nature and causes of the recent conflict), and political "currents" are paramount before undertaking humanitarian activity. In addition to the more evident threats while volunteering in war zones with few amenities, aid workers are prone to suffer physical, emotional, and psychologic problems during and after missions. Taking appropriate stock of one's emotional and mental well-being is equally appropriate for EPs working in a high-stress clinical environment as it is for humanitarian workers assisting in a refugee setting. Personal preparedness and self-reflection benefits the aid worker and leads to meaningful and more effective delivery or assistance.

#### *Future needs in humanitarian assistance and roles for emergency medicine*

Like emergency medicine, HA is a young science. Interest continues to grow within emergency medicine for international HA and international voluntary service. To meet this need, there are many academic, research, and mentoring opportunities to provide public health training. The intrinsic strengths of EPs can contribute to making a substantial impact upon HA and advance its ability or organizations to aid populations in danger and extreme need. In kind, HA can lead to the improvement of emergency health services in the postemergency setting. In the post-crisis phase of a conflict or disaster, there is a shift from emergency response to transitional programs and a need to prioritize macrohealth interventions leading to sustained rehabilitation and reconstruction. Priorities include local capacity building and using previously existing national, regional, and district health infrastructure rather than building parallel health systems. Such settings

provide significant opportunities for major health systems improvements, particularly in the development of emergency health services.

During this transitional time, emergency medical services are among the top priorities for governments faced with the task of rebuilding a health system. The promotion of a systems-wide approach for improving emergency health systems, including educational programs, field-level training, or prehospital care providers and analysis of access, economics, and practice standards in emergency medical delivery, are key priorities. Developing emergency care during the rehabilitation phase provides an opportunity for EPs to establish training programs for local health providers in mass casualty, triage, and disaster management, a prevention strategy to manage the emergency health problems of the next disaster or conflict. Greater capacity for local governmental and nongovernmental organizations is needed for rapid short-term response, disaster epidemiology and planning, quality assurance, and emergency health systems improvements. Developmental activities that improve infrastructure improve the response capacity of communities or nations, but targeted development of a county's ability to respond to threats of drought, famine, flood, or displaced populations requires disaster-specific preparedness. Too few of these national programs exist, and a greater emphasis by funding organizations on planning and preparedness could lead to significant improvements in mitigating the detrimental effects of a disaster.

Activities such as assessing emergency health systems, teaching emergency care skills, developing emergency medicine curricula, and mentoring local emergency care providers, in emergency medicine and emergency nursing, are forms of "technology transfer" unique to EM and EPs. Such activities should be crafted with an eye toward sustainability. Long-term nurturing of collegial relationships requires patience and cultural sensitivity.

Another critical opportunity during any conflict or postconflict period is the attention to medical documentation of human rights abuses. Physicians have taken a leading role in the recognition and documentation of human rights violations in a variety of settings. These efforts have prominently featured physicians who have first-hand experience with a variety of injury patterns and have applied clinical and forensic skills to document incidents of human rights abuse including torture, rape, chemical weapon injuries, deliberate assault, and mass executions that frequently typify CHes. One NGO, Physicians for Human Rights, has used physicians in the field to bring such abuses to worldwide attention [34].

## Summary

As human civilization faces new and challenging humanitarian crises, the entrance of EPs into the realm of HA is needed and timely. As noted by Jennifer Leaning [35], an EP at Harvard University, "Medical and public

health personnel who respond to these crises enter a domain of perilous complexity. Road maps do not exist, but the possibility of good favors the prepared mind.” Thus, with proper training in the principles of public health and experience, EPs have a tremendous opportunity to affect the realm of international HA, particularly via the analysis and development of international emergency health systems and building the capacity for effective relief. EPs with training in HA can be valuable assets to relief programs in the field and administratively, especially after the initial disaster and during the transition to health system reconstruction and development.

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