Chapter 17

The Humanitarian Sector in Evolution: Repercussions for the Health Sector

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Abstract

Humanitarian aid is one of the most meaningful areas of modern solidarity. In a context of growing needs and the permanent turbulence of our world, with complex conflicts and a multitude of other threats and hazards, the health sector has proven to be a very dynamic component of humanitarian aid and has developed a high level of professionalism and ethics. A rise in humanitarian funding and an explosion in the number of humanitarian actors has led to new coordination mechanisms, such as the cluster system established as part of the humanitarian reform process launched in 2005. Western humanitarian aid is now being confronted with the growing engagement of actors from state institutions, civil society organizations, and the private sector in the South. Humanitarian actors, especially from the health sector, are increasingly involved in the management of new kinds of crises, and confronted with the challenges posed by large-scale disasters (such as the management of mass casualties) and new epidemics. Largely dependent on resources from the public or from states, the humanitarian sector must defend its independence and its capacity to intervene in difficult environments against political encroachments that can hinder access to affected populations. The health sector, for example, must consider how it can work with military emergency deployments while maintaining its humanitarian principles. In the face of increasingly volatile situations and complex issues, the humanitarian community must constantly improve its methods for needs assessment, project design, monitoring of interventions, and impact evaluations. Information technology is becoming increasingly critical. The capacity to anticipate, to proactively prepare for new challenges, and to innovate remains the only solution for the aid sector, including its health component, to remain relevant in the long run.

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Key Points

- The nature of humanitarian emergencies has changed in recent years, characterized by a rise in local conflicts and natural disasters, as well as increased blurring of the distinction between man-made and natural disasters.
- The response to such disasters is now being managed by a wide array of humanitarian aid actors, including western, southern, and eastern non-governmental organizations, United Nations organizations, armed forces, and the private sector.
- Responding to the need to ensure greater coordination of these disparate actors, the United Nations Office for the Coordination of Humanitarian Affairs initiated the cluster approach, a mechanism to strengthen partnerships and clarify the division of labor among organizations. This mechanisms needs to be continuously improved to cope with regularly emerging new challenges.
- The policy response to a humanitarian crisis must be context-specific: responding to open conflicts in urban settings versus mass refugee situations will require different responses.
- "Pre-disaster" risk management needs to become an integral part of preparedness for future humanitarian intervention.

Key Policy Implications

- Achieving a contextually relevant and effective humanitarian response depends on the inter-play between (i) the objectives of the response (as defined by mortality/morbidity and the expected end state for the local health institutions); (ii) contextual constraints (e.g., the status of the health system prior to the crisis, access to the wounded or sick); and (iii) the technical, financial, and political capacity of the health aid agencies.
- For large-scale rapid onset disasters, such as earthquakes, in order to analyze the situation and plan an appropriate response, humanitarian policy-makers should distinguish between three different phases: the acute emergency phase, the stabilization phase, and the recovery phase.
- While humanitarian policy-makers should adopt evidence-based practices, they must also support innovation and accept a certain level of risk-taking – in rapidly changing and unpredictable circumstances, risk-averse attitudes can be a major impediment to effective humanitarian action.

Introduction

The landscape of global humanitarian crises and intervention once seemed simple to describe, at least on the surface. Global fault lines, economic and political divisions, and the roots of conflict and social tension were seen through the simple prism of Cold War, Sino-Soviet, and North–South antagonisms. The aid community was relatively small, largely dominated by its health and food aid components. In conflict situations, there was the diplomatic International Committee of the Red Cross (ICRC), whose symbol was respected; the United Nations, which was seen as paralyzed by Cold War politics (Ryan 2000); and the risk-taking Médecins Sans Frontières (MSF), who conducted stealthy cross-border operations.

Such simple descriptions no longer hold true. When the Berlin wall fell, and new states emerged from the collapse of the Eastern bloc, many of the complexities that were previously hidden came to the surface. The early 1990s saw a dramatic increase in the number of civil wars, ethnic confrontations, and local and regional conflicts over resource control (SIPRI 2000), often exacerbated by external powers, and accompanied by a rise in media attention and coverage. New concepts emerged to describe the complexity, such as "unstructured conflicts," defined as conflicts whose determinants do not follow classic, understandable patterns, and "complex political emergencies," which refers to internal wars that are political in nature, with complex origins and a multiplicity of players (Sondorp and Zwi 2002).

Global humanitarian assistance more than doubled between 1990 and 2000, from US$2.1 billion to $5.9 billion (HPG 2002), associated with an explosion in new humanitarian agencies both in the West as well as in developing countries. Many more actors became involved in humanitarian action, such as the military and the private sector. As the landscape of humanitarian action became more crowded, coordination became crucial, over and above the issue of clarification of mandates, roles, and responsibilities. Several mechanisms were developed under an "integration agenda":

1. Integrated missions (i.e., military, political, development, and humanitarian aid brought together under one objective and structure).
2. Strategic frameworks supporting coordination between different actors, such as the framework proposed by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA 2010).
3. The recent "one UN approach," which tries to bring all UN agencies together into single "country teams.
4. The humanitarian reform agenda, with its new sectoral coordination mechanism, known as the cluster system.

In this chapter, we examine the increasing complexity of humanitarian action and the efforts to better coordinate disparate activities, including some of those listed above. We begin by describing the recent landscape of humanitarian crises, including the increasing impacts of natural hazards. Next we examine some of the key actors in humanitarian assistance, many of whom are new to scene, such as the private sector and a new range of non-governmental organizations (NGOs). This is followed by a description of the current status of humanitarian responses, and the evidence on what works best. We end by laying out some of the challenges and opportunities ahead in preparing for future humanitarian crises, using the humanitarian response to the 2010 Haiti earthquake as a case study to help illustrate key concepts.

The Changing Nature of Humanitarian Crises

Rise of Local Confrontations

The recent era of humanitarian crises has been characterized by a rise in local confrontations. The Cold War's "East–West" confrontation had masked many other local fault lines, such as ethnic divides in Angola, or a divide between the modern urbanized class versus the traditional religious peasantry in Afghanistan. These fault lines re-emerged with great force after the collapse of the Soviet Union. In addition to conflicts based on such re-emerging fault lines, new ethnic or religious conflicts erupted and brought international attention, such as in sub-Saharan Africa (Burundi, the Democratic Republic of the Congo (DRC), Rwanda, Somalia), the Balkans, the North and South Caucasus, East Timor, and the Philippines. In these conflicts, the basic foundations of human rights and international humanitarian law quickly reached their limits.

Many of these conflicts are related to the control of natural resources, such as oil, agricultural land and pastures, and precious stones and metals (Humphreys 2005). In some of the most recent cases, such as conflicts in the eastern part of the DRC, local conflicts have been exacerbated by the presence of underground resources (e.g., minerals, oil). The emergence of religious conflict and the "global war on terror" also created a new geopolitical situation where the difference between military and civilians, and between acts of war and acts of terror, became increasingly blurred (Cunningham 2009).

Increasing Impacts of Natural Hazards

Natural disasters, such as the Asian tsunami, the Sahel drought, and hurricanes in the United States, the Caribbean, and the Philippines, have also been on the rise. Though disasters have become less lethal, due to the actions of the international community in terms of both preparedness and disaster response (CRED 2011), they have caused greater damage to infrastructure and inflicted higher economic losses (World Bank 2011). For example, a recent World Bank report on assessing disaster risks to strengthen financial resilience found that 2011 was "the worst year on record for disasters caused by natural hazards, resulting in an estimated $380 billion in economic losses (World Bank 2012).

Crises are Usually Multifactorial

Humanitarian crises rarely have a single causative factor. In many instances, old root causes, such as conflict over land, collide with recently emerged catalysts, such as control of underground resources. The collision can create an extremely complicated mix in which it is difficult to identify the real dynamics of violence, to foresee the likely evolution, and to determine the real factors that have led to the destitution of a population.

The distinction between man-made and natural disasters has become increasingly blurred. Many "natural" catastrophes take place in conflict zones, such as the 1992 drought in Mozambique, and earthquakes in Afghanistan and Colombia. The real roots of many natural disasters, or at least the magnitude of their impact, often have human causes. A World Bank report on the economic impact of disasters noted that "earthquakes, droughts, floods, and storms are *natural hazards*, but the *unnatural disasters* are deaths and damages that result from human acts of omission and commission" (World Bank 2010). Inequitable land tenure systems leave poor farmers with land on slopes that they inevitably make more fragile. Acute urban poverty increases the likelihood of poor urban dwellers settling in "areas at risk," on flood-exposed river banks or landslide-prone

areas. Vulnerability reduces the scope of possible coping mechanisms, while the HIV epidemic drastically affects the resilience of people and societies (Harvey 2004). When a crisis – natural or otherwise – takes place in such debilitated environments, it is no wonder that the community has few coping mechanisms.

Humanitarian Aid Architecture

Thirty years ago, there was just a handful of aid agencies working in crisis zones. Since then the situation has changed dramatically: in Kosovo, more than 200 agencies were competing for money for a territory no bigger than Belgium (Kehler 2004). In Afghanistan, the number of aid actors went from a few dozen during the period of Taliban rule to more than 2000 after 2010 (Grünewald and Binder 2010). After the Haiti earthquake, the number of NGOs jumped from a few dozen to more than 4000 (Grünewald and Renaudin 2010).

Explosion of Western NGOs

In the West, the number of humanitarian NGOs has multiplied by several hundred since the early 1980s (Bagci 2003). In the late 1970s, a wave of NGOs emerged to provide humanitarian assistance to Cambodian and Afghan refugee camps. Further waves followed the end of the Cold War. The growth of NGOs for Somalia, former Yugoslavia, and Rwanda was largely made possible by the increase in money available from donors such as the Humanitarian Aid and Civil Protection department of the European Commission. With this growth of new NGOs, a body of professional administrators emerged, more technocratic than their predecessors. The romanticism of night time cross-border operations faded away and was replaced by the world of the professional humanitarian managers.

This new generation of humanitarian actors continued to grow with the NATO intervention in Kosovo and during the first few years of the post-2001 era in Afghanistan. The last phase took place with the South Asian tsunami of December 2004 and the Haitian earthquake of January 2010. These two key events accelerated the growth of the aid industry, especially of the small health NGOs that were largely inefficient because they were unable to deal with the complexity of the crises and they lacked the relatively important logistic means required to have any meaningful impact.

However, there has been insufficient donor funding to support all of these NGOs. Certain NGOs, such as Equilibre, proved to be too dependent on institutional donors, and disappeared. Others became mere implementing agencies, working at the disposal of institutional donors. A few NGOs, such as MSF, sought financial independence as a way to resist being used as an instrument of the state.

Rise of Southern and Eastern NGOs and Civil Society

Developing countries are witnessing an incredible growth in their humanitarian NGOs, including in the Islamic world. The rise of local NGOs is linked to the growing resources available to them from international donors. In many crisis-stricken areas, international and national NGOs represent the main source of employment. They are sometimes the organized answer of civil societies to the structural adjustments imposed by international financial institutions; adjustments that constrained public health spending and put caps on public health wages (Banerjee 1999; Kim *et al.* 2000). Highly qualified medical

personnel in many developing countries who have been unable to find governments jobs have often been recruited as specialized staff for the aid industry. In places such as Haiti, for instance, the public health system lost hundreds of medical staff to NGOs and the UN agencies (Grünewald and Binder 2010; De ville de Goyet *et al.* 2011).

Centrality of the UN Family and a New Approach to Coordination

Just after the Cold War, the UN became increasingly engaged in humanitarian action and its coordination. The creation of the Department for Humanitarian Assistance (DHA) in 1991 and its replacement a few years after by the OCHA put the UN at the centre of aid coordination. Headed by an Under-Secretary General with the title of Emergency Relief

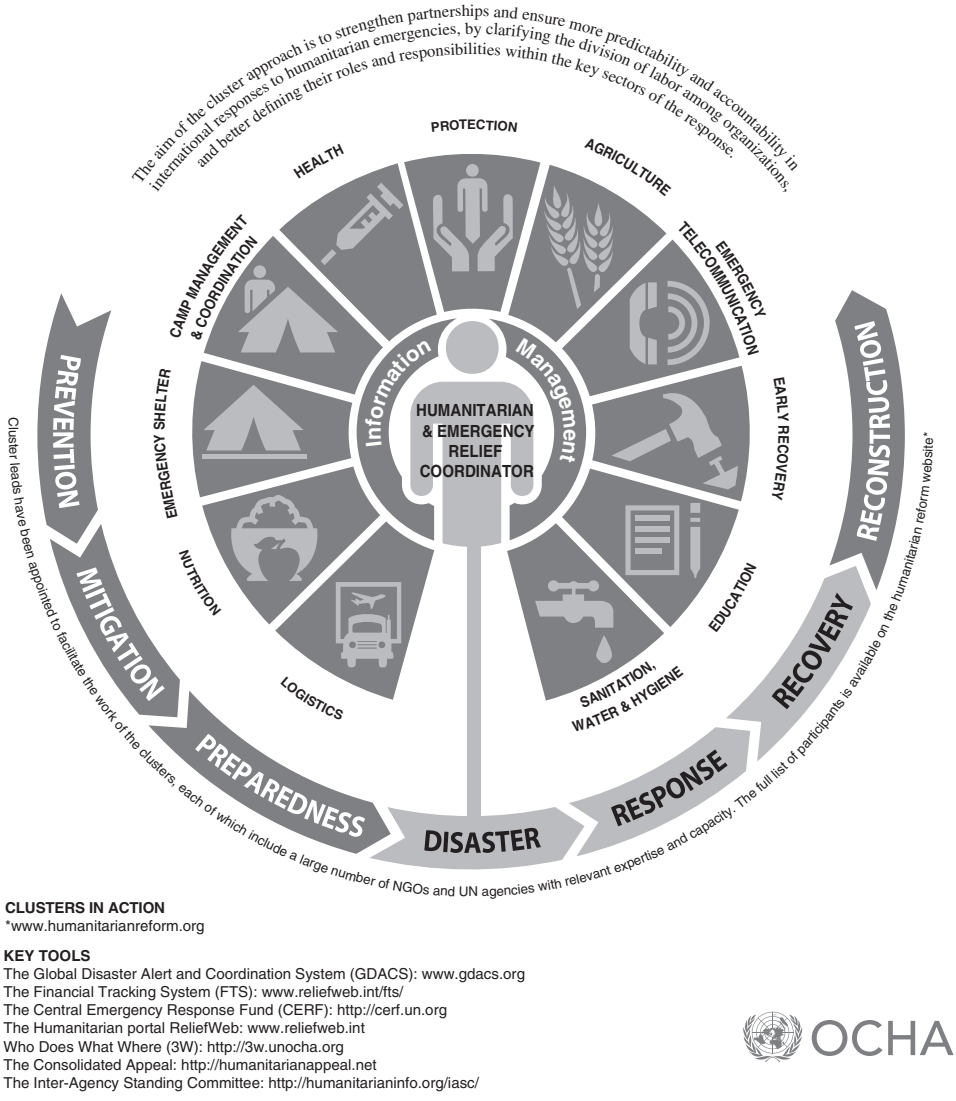

Figure 17.1 The cluster approach. Source: UN (2012), Office for the Coordination of Humanitarian Affairs (OCHA).

Coordinator, OCHA is tasked to support and facilitate coordination within and outside the UN family, in particular via the Inter Agency Standing Committee for Humanitarian Affairs (IASC), which brings together UN agencies, the International Red Cross and Red Crescent Movement, and NGOs.

Having understood that funding for international development was falling, and that institutional visibility was increasingly associated with humanitarian action, most UN agencies have created their own "emergency unit." Consequently, OCHA came under pressure to improve the way in which the different UN agencies worked together. One of the milestones in this process of improving coordination was the humanitarian reform launched in 2005. A new mechanism of sector coordination, the cluster approach (Figure 17.1), was introduced as part this reform (~~United Nations~~ 2012). OCHA states that the aim of the cluster approach is "to strengthen partnerships and ensure more predictability and accountability in international responses to humanitarian emergencies, by clarifying the division of labour among organisations" (OCHA 2012).

Box 17.1 Benefits and weaknesses of the cluster approach to humanitarian assistance.

Benefits	*Weaknesses*
• Coverage of humanitarian needs has improved in some thematic areas, including gender-based violence, child protection, disability, water and sanitation, and nutrition. • Gaps in assistance are better identified and duplications are reduced, leading to better targeting of assistance and more efficient use of resources. • Actors are better able to learn through peer review mechanisms and enhanced technical and sometimes normative discussions. • Organizations assuming coordination tasks exert more predictable leadership, there is greater clarity concerning leadership roles, and there are more and better trained staff dedicated to coordination. • Stronger partnership between UN agencies and other international humanitarian actors – leading to improved information sharing, greater advocacy power, and and enhanced coherence, as cluster members adopt common positions on specific operational questions and support the development and dissemination of local standards. • Improved planning for major funding appeals.	• Clusters largely exclude national and local actors and often fail to link with, build on, or support existing coordination mechanisms – as a result, the cluster approach weakens national and local ownership and capacities. • The cluster approach can threaten humanitarian principles, especially where cluster members are financially dependent on cluster lead organizations and where cluster lead organizations are part of, or maintain close relationships to, integrated missions, peacekeeping forces, or political actors involved in conflicts. • Poor cluster management and facilitation in many cases prevents clusters from reaching their full potential; many coordinators are not trained well enough in facilitation techniques, lack a common basic handbook or toolkit and, especially at the sub-national level, often do not have sufficient time dedicated to coordination. • Inter-cluster coordination is ineffective in most cases and there is little integration of cross-cutting issues.

Source: Steet *et al.* (2010).

The cluster approach seeks to make humanitarian assistance more effective by introducing an enhanced system of sectoral coordination (clusters) with designated lead organizations to support each cluster (such as WHO in the health sector, UNICEF for nutrition, and the Food and Agriculture Organization for food security). The lead organizations are accountable to the Emergency Relief Coordinator (~~United Nations~~ 2012).

An evaluation of the cluster system conducted in 2009–2010 found that the new system offered both benefits and weaknesses compared with the old way of doing business (Steet *et al.* 2010) (Box 17.1).

In this evaluation (Steet *et al.* 2010) the health cluster was rated relatively well compared to others (Box 17.2).

Box 17.2 Key findings of a 2010 evaluation of the health cluster.

Positive performance of the health cluster

- Involvement with national actors: there is a clear strategy to systematically engage with the national and local health administration.
- Communication to health stakeholders and the public at large: the fact that WHO and the health cluster have a strong commitment to health surveillance results in a dynamic communication strategy.
- Implementation of leadership responsibility: the strong involvement of WHO top management in the cluster has a positive impact on the behavior of WHO representatives in the field.
- Support from the global cluster: this has been very strong from the beginning. The health cluster was the first to produce a cluster handbook. WHO headquarters is systematically and strategically in touch with the field and supporting operations.
- Capacity to interact with the financial components of the reform: health is often seen as a critical life-saving sector and WHO has relatively easy access to the Central Emergency Response Fund (CERF), a unique mechanism to rapidly allocate funds to emergency operations. Health components of the main UN fundraising tool for humanitarian aid (the Consolidated Appeal Process (CAP) and Flash Appeals) are often relatively well covered compared with others.

More varied performance

- WHO is more often playing the role of "advocate of last resort" rather than "provider of last resort." The security constraints on UN agencies affect WHO's capacity to act in the field, whereas institutions such as the ICRC and MSF, which are at best "engaged observers" but not real members in the cluster, can act more freely.
- WHO's capacity to engage with non-cluster members remains limited.

Poor performance

- Accountability to the UN Humanitarian Coordinators (HC): as with many UN agencies, direct accountability is more towards the headquarters and executive board rather than to the HC.

- The health sector does not use participatory approaches, yet it could gain important knowledge on local health practices and specific health issues from such approaches.

Source: Steet *et al.* (2010).

New Role of the Armed Forces

With the end of the Cold War, the combat role of many countries' armed forces lost some of its relevance. The military resources that were freed up by this diminished combat role were in part redirected to peace-keeping operations. These operations have become the military's "visibility and public relations card" and an argument for the military's continued existence.

The engagement of armed forces in crisis management takes many forms, which partly depend on whether or not there is a formal mandate for the military's involvement (Holzergref and Heohane 2003). The scope of military humanitarian intervention is very wide, including the deployment of costly logistics and heavy duty equipment in the case of disasters; the establishment of checkpoint controls; the opening of "humanitarian corridors" aimed at allowing safe passage of humanitarian aid into crisis regions, and of refugees out of such regions; and the provision of security for aid workers (Seybolt 2007). However, there is also the risk that these roles can be blurred with other agendas. They can become blurred with economic agendas; for example, in the Balkans, army reservists from different countries were carrying out reconnaissance for private enterprises (Grünewald and De Geoffroy 1999). They can also become blurred with political "state building" agendas, as in Afghanistan, where the Provincial Rehabilitation Teams, made up of a mix of civil and military actors, were created to support the presence of the Afghan State in the provinces (CORDAID 2007), but were often seen as part of the warfare against the insurgency.

Aid and Profit: Growing Involvement of the Private Sector

The private sector has recently attempted to get in on a share of humanitarian funding, as shown by the multiplication of international events such as Dubai International Aid Development (DIHA) or AID EX (Aid Exposition), which are half commercial fairs, half humanitarian conferences. A variety of factors helps to explain the recent involvement of for-profit companies in humanitarian work. Humanitarian work can be used rather cynically to help boost corporate image or as a corporate team building exercise. Some companies may become involved because they own oil fields or mine precious stones in a crisis zone and so they have a stake in the outcome of the crisis. On a more constructive note, the private sector may sometimes be able to provide the technical or managerial expertise needed in certain operations that may be lacking within humanitarian agencies.

Killing Aid Actors for Political Gains

As discussed further in Chapter 18, one of the most worrying trends in this new world of complexity and turbulence is the increase in deliberate killing of aid actors and humanitarian workers. Of course, casualties among such workers have always happened

periodically, but, in most instances, it was because someone was in the wrong place at the wrong time – ambulances were not targeted.

There are two key reasons for the rise in violence against relief workers. First, a large proportion of new violent non-state groups do not see themselves as being party to international humanitarian law (IHL), the law of armed conflict, which prohibits attacks on aid actors. To them IHL is the law of nation states they fight against. The second reason is the perceived role that humanitarian aid plays in the "integrated approach" advocated by the UN and certain governments since the end of the Cold War. The position of the main western powers in relation to NGOs is, "You are either with us or against us." This leaves little room for independence, neutrality, or impartiality, three key principles central to humanitarian action. In a context dominated by the global war on terror, this position leads to aid actors being seen as members of the "warfare system" and therefore as targets for killing.

Adjusting to a Diverse and Fast-Changing World

Assessing Needs and Capacities: Multiple Contexts Require Diverse Responses

Each specific humanitarian context brings about its own specific challenges for health responders (Grünewald 2008). The most difficult situations are open conflicts in urban settings, as seen in the recent conflicts in Libya and Syria, where humanitarian access is restricted by military operations yet public health needs are important. Significant numbers of people are wounded in this type of conflict. Managing bullet and shell wounds requires surgeons, anaesthetists, and nurses supported by the proper supply of electricity and blood, and the capacity to provide the required care and keep basic aseptic conditions. This requires that hospital structures are accessible and that wounded people can be evacuated rapidly.

The experience of ICRC and MSF, as seen in Mogadishu, Grozni (Chechnya), Kabul, or Syria, shows that it is indeed possible to maintain access to a limited number of hospitals, but evacuation systems are by and large deficient during military operations (ICRC 2010). In fact, the key element of their strategy was to ensure that any single opportunity to replenish stocks was used to ensure that a minimal capacity remains in place to cope with difficult times. Often, however, blood was missing.

Large-scale military operations in urban settings have at least three things in common with large-scale disasters:

1. The magnitude of the needs (the wounded are often counted in the thousands).
2. The fight against time to get people out of the rubble or who are wounded in the streets.
3. The fact that these situations immediately require complex triage and treatment (e.g., for crush syndrome, in which massive muscle injury leads to sudden circulatory shock and kidney failure).

The capacity to save wounded people is directly linked to the time required for them to access a suitable treatment. This capacity often requires the ability to stabilize and evacuate patients, but such capacity is missing when cities become active battlefields or are devastated by a large-scale disaster. There may also not be a functioning blood bank. These challenges typically result in a high mortality rate (ICRC 2010). Amputation rates

are also high given the high rates of severely infected wounds (De Ville de Goyet *et al.* 2011).

The public health system, which is by and large structured upon a referral system in which patients are first seen at village level health posts and then referred on if needed to larger referral centers in urban settings, is also weakened by wars and disasters. In affected larger towns, especially capital cities, the central reference center, which is normally equipped with functioning acute treatment services, operating theaters, obstetric wards, and laboratories, becomes partly or totally dysfunctional. Equipment is often destroyed, badly maintained, or in short supply. Since the very top of the "reference pyramid" becomes non-functioning, the national health system is unable to fully respond to patient needs.

Humanitarian aid often tries to cover the needs of large populations on the move. These populations either manage to cross an international boundary, becoming refugees and falling under the remit of the UN High Commissioner for Refugees, which can then prove assistance and protection, or they remain within their country and fall into the category of Internally Displaced People (IDP) (Borton *et al.* 2005). IDPs typically are housed in camps, where maintaining sanitation and hygiene and protecting people against harsh climatic conditions can be a challenge. Acute respiratory infection and diarrheal diseases are common and major threats. Some estimates suggest that has diarrhea may account for 25–40% of all childhood deaths in conflict situations and as many as 80% of deaths among children under 2 years old (Sharp *et al.* 2002). Kouadio *et al.* (2010) reviewed the literature on measles outbreaks among displaced populations and found 11 documented outbreaks between 1979 and 2005 in Asia and Africa. Measles has a high impact, argue the authors, because of the high population density in IDP camps and because of the low measles vaccination coverage among children. Around two thirds of people affected by humanitarian emergencies, including IDPs and refugees, live in malaria-endemic regions. A recent analysis of malaria in 60 post-emergency refugee sites across nine countries in 2008–2009 found a malaria incidence rate of at least 50 cases per 1000 refugees (Anderson *et al.* 2011). Across all sites, malaria caused 16% of deaths in refugee children under the age of 5 years.

In the past, IDP camps have been often the main targets for public health intervention by aid agencies, and this is still the case for the Turkish and Emirati Red Crescents Societies in the new IDP camps in different parts of Mogadishu, Somalia (Grünewald ~~2012~~). Yet when health assistance is being provided to IDP camps, there is often a need to extend it to the surrounding population. Indeed, building health infrastructure for IDP camps when the nearby urban population is totally deprived of any access to health services can be unfair and also a source of security problems.

Designing the Appropriate Response

Achieving a contextually relevant and effective humanitarian response depends on the interplay between three factors:

1. The objectives of the response (both in terms of mortality/morbidity and of the expected end state for the local health institutions).
2. The contextual constraints, especially the status of the health system prior to the crisis, access to the wounded or sick, and logistics (e.g., energy and water supply).
3. The technical, financial, and political capacity of the health aid agencies.

The right information is needed at the right time to support decision-making processes, especially information from epidemiological baseline surveys and from analysis of the health impact of the disaster. Improving future humanitarian responses requires professionalism and the capacity to review critically what has worked and what has failed. In the humanitarian sector, this kind of critical analysis has led to previously hidden debates being exposed – debates about providing minimum humanitarian standards of intervention, and about evidence-based versus experience-based decision-making.

In the late 1990s, after the 1994 Rwanda genocide and subsequent cholera crisis in refugees camps in Goma, eastern Zaire, which caused almost 12,000 deaths (Siddique 1994), a group of international NGOs developed a set of standards governing the implementation of relief programs. Known as the Sphere standards, their aim was to improve the quality of humanitarian interventions and to hold humanitarian actors accountable for such improved standards (Sphere 2012). Box 17.3 gives examples of Sphere standards for emergency nutrition interventions (Greekspoor and Collins 2001).

Box 17.3 Examples of Sphere standards for emergency nutrition interventions.

Standard 1: assessment

Before any decisions are made about a program, aid workers must demonstrate understanding of the basic nutritional situation and conditions that may create a risk of malnutrition

Standard 2: response

If nutritional intervention is required, the problems must be clearly described and the strategy for response documented

Standard 3: monitoring and evaluation

The performance and effectiveness of the nutrition program and changes in the context must be monitored and evaluated

Standard 4

The public health risks associated with moderate malnutrition are reduced

Standard 5

Mortality, morbidity, and suffering associated with severe malnutrition are reduced

Source: Greekspoor and Collins (2001).

Although the standards have been generally welcomed, there have also been a series of criticisms about their applicability and relevance (Greekspoor and Collins 2001). A concern raised in 1998 by a group of French NGOs is that these standards apply mainly to relatively clear-cut situations in relief camps and that standardization will prevent relief workers from adapting to more complex situations (Groupe URD, 1998, The French

~~Letter, unpublished document~~; Dufour 2004). Another fear is that politicians could use the standards to obscure their responsibilities to tackle the underlying causes of emergencies. Finally, the Sphere standards include quantitative indicators of whether the standards have been met – for example, the indicator of whether water standards have been met is that the average water use for drinking, cooking, and personal hygiene in any household is at least 15 liters per person per day (Sphere 2012). Such indicators could foster unrealistic expectations while ignoring constraints.

Adjusting Programs to Fast-Changing Situations

Disaster scenes are fast changing, and flexibility is essential to remain relevant. For large-scale rapid onset disasters, such as earthquakes, in order to analyze the situation and plan the response, it is important to distinguish between three different phases (Grünewald and Binder 2010):

1. *Acute emergency phase,* requiring acute surgery and postoperative care. In this initial phase, treatment needs to be provided to the very large numbers of people with a variety of injuries of all kinds, such as fractures, head injuries, burns, and amputations. The rapid establishment of a health surveillance system is also very important. During this acute phase, there tends to be an influx of international aid, with the rapid establishment of a large number of emergency hospitals on land and at sea as well as several hundred medical staff mobilized in the field.
2. *Stabilization phase,* which involves establishing or re-establishing a healthcare service for the population at large, including those who may have been displaced by the disaster.
3. *Recovery phase,* in which the health sector is restored to its previous functioning, including rebuilding primary and referral and establishing sound health economics.

Preparing for Future Humanitarian Crises

Risk Management: Predicting the Challenges Ahead

As discussed at the start of this chapter, the world is facing a complex array of risks – from climate change to pandemics – that make future humanitarian emergencies certain to occur. Thus, "pre-disaster" risk management must be an integral part of preparedness for future humanitarian intervention.

In the humanitarian health sector, establishing risk surveillance systems at the community level and upwards is imperative. Table 17.1 gives an example of how risk analysis can help in understanding and preparing for future crises in Haiti (Grünewald and Binder 2010). Some health risks are predictable, such as those in connection with rainy, hurricane, and winter seasons. Others, such as imported epidemics (e.g., cholera in Haiti or emerging diseases such as SARS) or social tensions and violence, are far less predictable and require extremely fine analytical tools largely drawing from political economy (Grünewald *et al.* 2011a).

In addition to the risks presented in Table 17.1, there are the predictable and known ways in which public health needs develop in situations like these. Figure 17.2, developed by Groupe URD, a research and evaluation institute based in France that focuses on improving the quality of disaster management, presents typical ways in which health

Table 17.1 Risk analysis in Haiti.

Risks	*Description*	*Probability*	*Level of preparedness*
Climatic risks	Management of future rains, which will increase health risks (those linked to sanitation, acute respiratory diseases, or vector-borne diseases such as dengue fever)	Very high	Low
	Management of the hurricane season, which theoretically begins in June and usually ends in November. There are fears that the hurricanes will be violent due to perturbations to the El Niño–La Niña system	High	Medium to high
Geologic risks	Management of geologic and geomorphological perturbations linked to shearing, the creation of weak points and the risk of solifluction (slow downhill movement of soil)	High	Low
Seismic risks	Management of seismic aftershocks, which have continued regularly since the earthquake on 12 January 2010 (e.g., a tremor of 4.4 on the Richter scale was felt in Port-au-Prince on 26 January 2010)	Uncertain, but perceived to be high	Low
Sociopolitical risks	Development of insecurity linked to popular discontent, which is then exploited for political ends	Significant, but should not be exaggerated	Medium (taking into account the UN Stabilization Mission in Haiti and the presence of armies from different countries)
Technological risks	Accident of a technological nature (e.g., an oil slick)	Uncertain	Low

problems and needs develop in post-disaster contexts (Grünewald *et al.* 2011b). Waterborne diseases occur early, as do acute psychosocial problems (a second "wave" of delayed psychosocial problems tends to occur several months later). These are followed by a rise in vector-borne diseases and then respiratory diseases. In the post-earthquake period in Haiti, the country has seen a high burden of both respiratory disease (related to the poor living conditions of IDP camps) (Brennan and Nandy 2001) and psychosocial and mental health problems (Safran *et al.* 2011).

There are a number of myths surrounding post-disaster health risks that tend to be propagated in the wake of disasters, sometimes to try to raise money. The WHO has been aggressive in dispelling these myths (De Ville de Goyet 2000, 2004). As described by De Ville de Goyet (Chief of the Emergency Preparedness and Disaster Relief

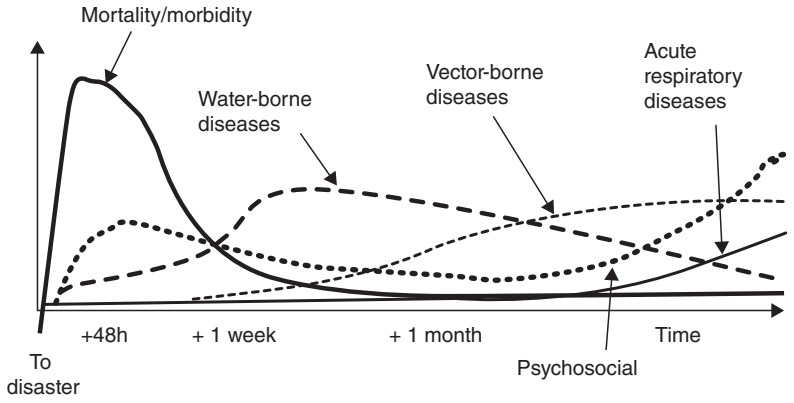

Figure 17.2 Evolution of different health hazards in a post-disaster setting. Source: Groupe URD (~~1998), The French Letter, unpublished document~~).

Coordination Programme at the Pan-American Health Organization), these myths include the following:

- Dead bodies are a source of communicable diseases, such as cholera and typhoid fever (De Ville de Goyet 2004).
- "The affected population is helplessly waiting for the Western world" (De Ville de Goyet 2000); most survivors owe their lives to neighbors and local agencies.
- Things return to normal within a few weeks; instead, the effects are prolonged.

Preparedness for future disasters means planning for long-term disabilities, including their medical, psychosocial, and economic consequences. One of the effects of large-scale disasters or conflicts has been to cause a large number of physical and psychological injuries, such as bullet wounds, landmine and shrapnel injuries, or the after-effects of poorly treated gangrene. In a country such as Haiti, which had high unemployment even before the earthquake, a major ongoing challenge is to find work opportunities for such a large number of people with disabilities (Wolbring 2011).

Rethinking Approaches

Old methods of responding to humanitarian disasters seem to have reached their limits and there is a need to explore new and less familiar avenues. In particular, there is a clear need to speed up deployment and ensure a rapid strategic transition from emergency to recovery.

Groupe URD has established a typical timeline for a response to a medium- to large-scale natural disasters, based on numerous evaluations and field studies (Figure 17.3). The black arrows in Figure 17.3 show the timing of the key events of a classic response. The red arrows show the sequence of events for the response to the Haiti earthquake. It is clear from the figure that that the humanitarian system reacted more quickly than in any previous disaster situations (~~Grünewald *et al.* 2000~~): there was faster deployment of urban search and rescue (USAR) teams, NGOs, and coordination mechanisms. Planning for reconstruction also occurred earlier than in previous crises, as a result of previous studies on the importance of early recovery. Such earlier interventions after the Haiti earthquake

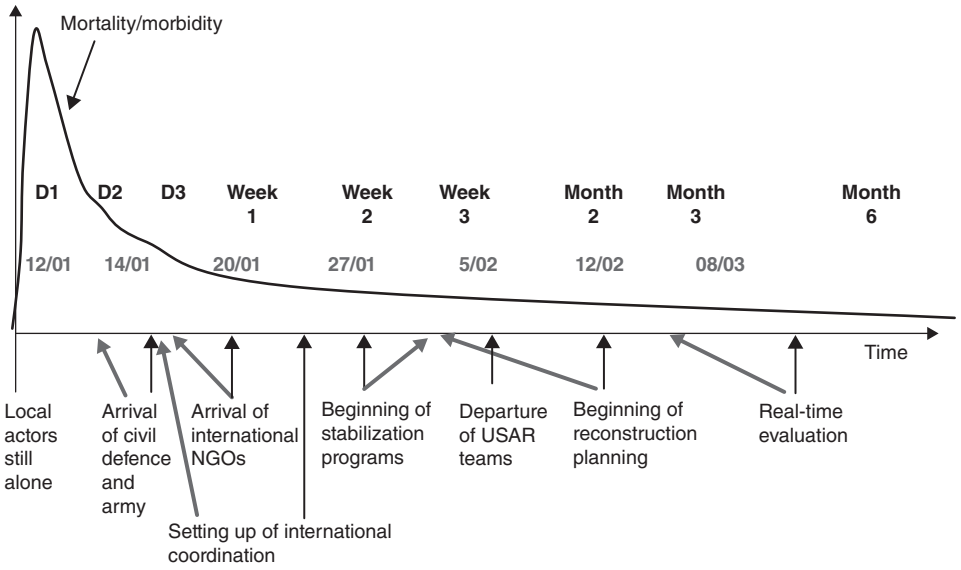

Figure 17.3 Evolution of the timeliness of response: the Haiti deployments compared to past experiences. D, day; NGO, non-governmental organization; USAR, urban search and rescue. Fine black arrows are key events of a classic disaster response; thick black arrows are key events in response to the Haiti earthquake.

are a positive development, and were a result of acting upon recommendations put forward by evaluations of previous crisis responses (Tsunami Evaluation Coalition 2007). But, as Figure 17.3 also shows, stabilization programs were instituted more slowly than in previous disasters.

Working in Insecure Environments

Since the mid 1990s, hardly a month has gone by without the death of an aid worker or journalist somewhere in the world. These deaths often take place either in contexts linked to rising confrontation between religious fundamentalists and non-religious governments, or in situations of ethnic wars. In these destabilized contexts, the fate of the civilian population is often in great danger. We need to improve our understanding of the link between conflicts, the security of aid workers, and the protection of civilian populations (Rieff 2002). In many contexts, where socioeconomic disparities, growing inequality, and social tensions lead to more burglaries and violence; where illegal trade empires are growing; and where information travels fast and connects violent groups in different parts of the world, aid workers have to be more resilient than ever.

Evaluating the Response

Evaluation is a key tool for both learning and accountability in the humanitarian sector. The evaluation of humanitarian programs, projects, and instruments has become a growing industry in recent years (Hilhorst 2002). But has evaluation actually helped to improve interventions? The answer remains unclear (Hallam 2011). Many evaluation reports remain "on the shelf," without influencing future action.

Nevertheless, there are strategic lessons that can be learned from past evaluations which can go a long way to help rethink the role of health professionals in humanitarian aid. Box 17.4 gives seven key lessons learned from evaluating the humanitarian response to the Haiti earthquake.

Box 17.4 Lessons learned from evaluation of the Haiti earthquake response.

These lessons are based on an evaluation conducted by Groupe URD 1 month after the earthquake (Grünewald and Renaudin 2010).

Strengthen the capacity of national institutions

While health aid organizations, including the WHO, made an effort to strengthen their own tools and working conditions, nothing was done to boost the capacity of national bodies so that they could assume leadership. Yet Haiti's National Ministry of Potable Water and Sanitation (DINEPA) adopted a community-based model that, with adequate support, could continue to have an essential role. It should have been possible to provide support to national bodies, and to strengthen national capacity. The absence of a strategic and systemic analysis of post-earthquake capacities led to the current strategy in which national strengthening has been neglected.

Do not be too hasty in deciding the humanitarian phase is over: continue to closely monitor the needs of the population

In 2010, tropical rain began to fall during the humanitarian mission, showing the extreme vulnerability of the population. A large proportion of the displaced persons and victims in Port-au-Prince, but also in Léogane, Gressier, and other locations, were still sleeping in shelters made with sheets and rags when the rain began to fall. The situation has improved since then, but very slowly. It is important to ensure that: (a) funds are still available to reduce this vulnerability; and (b) policy-makers do not jump to the conclusion that the emergency relief phase is over, even though it is useful to plan what comes afterwards.

Accelerate access to fast means of transport

One constraint that is systematically present when long distance deployments take place is restricted access to fast means of transport to carry the necessary equipment and logistical support. The mobilization of military assets needed to support civilian operations can be critical in the success of the response. However, this mobilization is also dependent on political decisions, so it is important to maintain a permanent interministerial mechanism to manage crises.

Improve the coordination between search and rescue and disaster medicine/ postoperative care

Better coordination is needed between all deployed mechanisms in terms of triage, disaster surgery, and postoperative care (e.g., tents and beds, coordination strategy with local institutions or those supported by other actors).

Provide mental health support to staff, including treatment for post-traumatic stress disorder (PTSD)

Many individuals involved in the first weeks of the response will be affected by these events for the rest of their lives. It is important that they are provided with psychological support and with appropriate treatment if they develop PTSD.

Conduct an economic analysis and formulate a strategy to help rebuild the health system

It is essential to develop mechanisms that will identify and mitigate the possible negative effects that the health emergency response can have on fragile health systems.

Conclusion: Challenges and Opportunities Ahead

The humanitarian sector has undergone major developments in recent years, such as improving its risk management approaches and responding more rapidly to crises. Yet the sector will need to remain in a permanent state of alert, as it will continue to face difficult challenges related to new and more complex crises. Confronting complexity with intelligence, turbulence with flexibility, and unpredictability with "multiscenario planning" are not easy tasks. Such challenges often confront the aid community as a whole – the UN, NGOs, and donors – a community that has its own limits in terms of assessment, planning, and resource allocation. In dangerous and fast-changing environments, making the wrong move increasingly risks the killing of aid workers and restricts access to affected populations. There is no quick-fix solution for this situation. The humanitarian sector must embrace complexity and turbulence, because from now on they will always be part of the humanitarian landscape. The sector will likely face four key challenges and opportunities in the years ahead.

Improving Humanitarian Operations in Settings of Global Urbanization

The earthquake in Haiti, the fighting in Kabul and Damascus (Grünewald 2013), and the precarious and sometimes explosive living situation in the massive slums in Asia and East Africa and the favelas of Brazil underline the complicated nature of development and humanitarian action in cities. Humanitarian intervention in urban settings is complex during the disaster risk reduction stage as well as the acute emergency, stabilization, and reconstruction phases (Boyer 2010). From their Cold War refugee camps and rural guerrilla experience, humanitarian actors are not used to the specific features of urban contexts (Grünewald and Levron 2004). Such actors will need to adjust their operations to account for these features, such as high population density; the need for management of medical care, logistics and transport; dealing with urban forms of violence; new kinds of relationships with urban authorities and social structures; and the important role of telecommunications (Duijsens 2010; Lucchi 2012).

Applying New Information Technology to Disaster Management

While the famine in Ethiopia in 1985 led to the advent of "show business" humanitarian action and the response to the tsunami in 2004 ushered in the age of donations made via

mobile phones, the Haiti crisis of January 2010 was the crisis of Facebook and Twitter, and also the intensive use of satellite images and SMS tools. A range of tools is currently being developed that could aid disaster management (Greenough *et al.* 2011), such as: (i) communications satellites and satellite operators (e.g., TSF, Eurosat, Immersat, and Iridium); (ii) satellites that collect and process images, like those run by the UN Institute for Training and Research (www.unitar.org/unosat/, last accessed December 2013) or by university centres; and (iii) social networks, new SMS tools, and "user generated content," such as content generated by Ushahidi (www.ushahidi.com, last accessed December 2013), an open source project that allows users to crowd-source crisis information to be sent via mobile, and by the Sahana Foundation (http://sahanafoundation.org, last accessed December 2013)), which provides open source software to improve communication in humanitarian crises. These tools will require monitoring at the strategic and technological levels in order to assess their value. Additional opportunities for applying information technology to disaster responses are being offered by Google Street Map and the growing industry of Geographic Information Systems.

Improving Local Disaster Management

Deploying external search and rescue teams is costly and may be less efficient than supporting national efforts. An analysis of the Haiti response by the Pan American Health Organization concluded that "the level of efficiency, in terms of the number of lives saved versus the cost of deploying large teams, was low" (De Ville de Goyet *et al.* 2011). In some cases, it cost an average of $1 million to extricate one person (De Ville de Goyet *et al.* 2011). Everything that can contribute to improving the local response, even if this requires an initial investment, allows both significant gains in terms of effectiveness and of major savings in the long term. National and local civil protection units, prefecture and municipal entities, as well as national Red Cross societies and their many volunteers, need to be given greater support.

Restoring Holistic Humanitarian Principles

To respond to calls for help from those who have lost everything because of war, floods, or lava flow is first and foremost to respect the principles of humanity. Humanitarian action must take a holistic approach: relief activities should strengthen the resilience of a population and its capacity to cope with crises. At a time when the language of consumerism is increasingly being used in the humanitarian field it is important to place the holistic nature of human beings above technical sector-based considerations. Are we responding to demands? Are we meeting needs? Whose needs and whose demands, and identified or collected by whom? Populations affected by crises are increasingly aware of how to respond to NGO questionnaires. The powerful strata of societies know how to manipulate assistance in their favor. The perception of what we want to hear dramatically affects the answers we get and therefore what we establish the demands to be. In this context, where private firms look for new markets, armies search for new mandates, and politicians seek a better image, humanitarian actors must return to the essence of their work with professionalism, humility, decisiveness, political astuteness, and a due respect to the Hippocratic Oath of first doing no harm.

Key Reading

Boucher-Saulnier F. 2007. *The Practical Guide to Humanitarian Law*, 2nd edn. Lanham: Rowman and Littlefield.

De Ville de Goyet C, Sarmiento JP, Grünewald F. 2011. *Health Response to the Earthquake in Haiti January 2010: Lessons to be Learnt for the Next Massive Sudden-Onset Disaster*. Washington, DC: PAHO.

Rieff D. 2002. *A Bed for the Night: Humanitarianism in Crisis*. New York: Simon and Schuster.

Seybolt TB. 2007. *Humanitarian Military Interventions: The Conditions for Success and Failure*. Solna: Stockholm International Peace Research Institute/Oxford University Press.

Stockholm International Peace Research Institute. 2000. *SIPRI Yearbook. Armaments, Disarmament and International Security*. Oxford: Oxford University Press.

References

Anderson J, Doocy S, Haskew C, Spiegel P, Moss WJ. 2011. The burden of malaria in post-emergency refugee sites: a retrospective study. *Conflict and Health* 5(1), 17.

Bagci C. 2003. Historical evolution of NGOs: NGO proliferation in the post-Cold War era. *Avrupa Gunlugu* 4, 299–326.

Banerji D. 1999. A fundamental shift in the approach to international health by WHO, UNICEF, and the World Bank. *International Journal of Health Services* 29, 227–59.

Borton J, Buchanan-Smith M, Otto R. 2005. *Support to Internally Displaced Persons-Learning from Evaluations*. SIDA. http://www.oecd.org/countries/eritrea/35093445.pdf (last accessed December 2013).

Boyer B. 2010. *Villes Afghans, Défis Urbains: Les Enjeux de la Reconstruction Post Conflit*. Paris: Karthala/Groupe URD.

Brennan RJ, Nandy R. 2001. Complex humanitarian emergencies: a major global health challenge. *Emergency Medicine (Fremantle WA)* 13(2), 147–56.

CORDAID. 2007. *Principles and Pragmatism: Civil-Military Action in Liberia and Afghanistan*. Utrecht: University of Utrecht.

CRED (Centre for Research on the Epidemiology of Disasters). 2011. *Annual Disaster Statistical Review 2011: Numbers and Trends*. Louvain: CRED/UCL.

Cunningham A. 2009. Somalia case study: shrinking humanitarian space in a collapsed state. Paper presented at the International Humanitarian Conference, Groningen.

De Ville de Goyet C. 2000. Stop propagating disaster myths. *Lancet* 356(9231), 762–4.

De Ville de Goyet C. 2004. Epidemics caused by dead bodies: a disaster myth that does not want to die. *Revista Panamericana Salud Publica* 15(5), 297–9.

De Ville de Goyet C, Sarmiento J, Grünewald F. 2011. *Health Response to the 2010 Haiti Earthquake: Lessons to be Learnt for the Next Massive Sudden Onset Disaster*. Washington: PAHO.

Dufour C, de Geoffroy V, Maury H, Grünewald F. 2004. Rights, standards and quality in a complex humanitarian space: is sphere the right tool? *Disasters* 28(2), 124–41.

Duijsens R. 2010. Humanitarian challenges of urbanization. In *International Review of the Red Cross*, No. 878. http://www.icrc.org/eng/resources/documents/article/review/review-878-p351.htm (last accessed December 2013).

Greekspoor A, Collins S. 2001. Raising standards in emergency relief: how useful are Sphere minimum standards for humanitarian assistance? *BMJ* 323, 740.

Greenough PG, Bateman L, Sorensen BS, Foran M. 2011. Innovations in humanitarian technologies working group: report of the proceedings, Humanitarian Action Summit 2011. *Prehospital and Disaster Medicine* 26(6), 482–6.

Grünewald F. 2008. New approaches for need assessments. In: *Humanitarian Response Index*. Madrid: DARA.

Grünewald F. 2012. Aid in a city at war: the case of Mogadishu, Somalia. Urban vulnerability and humanitarian response. *Disasters* 36(Suppl 1), 105–25.

Grünewald F. 2013. *Working in Syrian cities at war: humanitarian aid under constraints*. http://www.grotius.fr/working-in-syrian-cities-at-war-humanitarian-aid-under-constraints/ (last accessed December 2013).

Grünewald F, Binder A. 2010. *Real time evaluation for the international response to the Haiti earthquake*. New York/Geneva: Groupe URD/GPPI. http://www.urd.org/IMG/pdf/Haiti-IASC_RTE_final_report_en.pdf (last accessed December 2013).

Grünewald F, Boyer B, Kauffmann D, Patinet J. 2011b. *Real-time evaluation of humanitarian action supported by DG ECHO in Haiti*. Paris: Groupe URD. http://www.urd.org/IMG/pdf/GroupeURD_evaluationECHO-Haiti_final_SA_ANG.pdf (last accessed December 2013).

Grünewald F, de Geoffroy V. 1999. *Kosovo: confusions humanitaires, liberation*. http://www.urd.org/IMG/pdf/publispe_rebonds_armee_entreprises.pdf (last accessed December 2013).

Grünewald F, de Geoffroy V, Lister S. 2000. *NGO Responses to Hurricane Mitch: Evaluations for Accountability and Learning*. HPG Network Paper No. 34. London: Human Practice Network.

Grünewald F, Levron E. 2004. *Villes en Guerre, Guerres en Ville*. Paris: Khartala.

Grünewald F, Renaudin B. 2010. *Real time evaluation of the response to the Haiti earthquake, one month after.* Paris: Groupe URD. http://www.urd.org/IMG/pdf/rapport_DASHaiti.pdf (last accessed December 2013).

Grünewald F, Renaudin B, Raillon C, Maury H, Gadrey J, Hettrich K. 2011a. *Mapping of future unintentional risks: examples of risk and community vulnerability*. Paris: Groupe URD. http://www.urd.org/IMG/pdf/RAPPORT_URD_RISK_NON_INTENTIONNELS_EN.pdf (last accessed December 2013).

Hallam A. 2011. *Harnessing the Power of Evaluation*. ALNAP working paper, London. http://www.alnap.org/pool/files/evaluation-alnap-working-paper.pdf (last accessed December 2013).

Harvey P. 2004. *HIV and Humanitarian Aid*. HPG Report No. 16. London: HPG.

Hilhorst D. 2002. Being good at doing good? Quality and accountability of humanitarian NGOs. *Disasters* 26, 193–212.

Holzergref L, Heohane R. 2003. *Humanitarian Intervention: Ethical, Legal and Political Dilemmas*. Cambridge: Cambridge University Press.

HPG (Humanitarian Policy Group). 2002. *Financing international, humanitarian action: a review of key trends*. HPG Briefing Note 4. London: HPG. http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/365.pdf {last accessed December 2013).

Humphreys M. 2005. Natural resources, conflict, and conflict resolution. *Journal of Conflict Resolution* 49(4), 508–37.

ICRC (International Committee of the Red Cross). 2010. *War Surgery: Working with Limited Resources in Armed Conflict and Other Situations of Violence*. Geneva: ICRC. http://www.icrc.org/eng/assets/files/other/icrc_002_0973.pdf (last accessed December 2013).

Kehler N. 2004. *Coordinating Humanitarian Assistance: A Comparative Analysis of Three Cases*. http://www.ipg.vt.edu/papers/Kehler%20-%20MajorPaper.pdf (last accessed December 2013).

Kim JY, Millen J, Irwin A, Gershman J. 2000. *Dying for Growth: Global Inequality and the Health of the Poor*. Monroe, ME: Common Courage Press.

Kouadio IK, Kamigaki T, Oshitani H. 2010. Measles outbreaks in displaced populations: a review of transmission, morbidity and mortality associated factors. *BMC International Health and Human Rights* 10, 5.

Lucchi E. 2012. Moving from the "why" to the "how": reflections on humanitarian response in urban settings. *Disasters* 36(Suppl 1), S87–104.

OCHA (Office for the Coordination of Humanitarian Affairs). 2010. *OCHA Strategic Framework 2010–2013*. http://ochaonline.un.org/ocha2010/framework.html (last accessed December 2013).

OCHA (Office for the Coordination of Humanitarian Affairs). 2012. *How are disaster relief efforts organized? Cluster approach*. http://business.un.org/en/assets/39c87a78-fec9-402e-a434-2c355f24e4f4.pdf (last accessed December 2013).

Rieff D. 2002. *A Bed for the Night: Humanitarianism in Crisis*. New York: Simon and Schuster.
Ryan S. 2000. *The United Nations and International Politics*. Houndmills: Palgrave Macmillan.
Safran MA, Chorba T, Schreiber M *et al.* 2011. Evaluating mental health after the 2010 Haitian earthquake. *Disaster Medicine and Public Health Preparedness* 5(2), 154–7.
Seybolt T. 2007. *Humanitarian Military Interventions: The Conditions for Success and Failure*. Stockholm: Stockholm International Peace Research Institute.
Sharp TW, Burkle FM Jr, Vaughn AF, Chotani R, Brennan RJ. 2002. Challenges and opportunities for humanitarian relief in Afghanistan. *Clinical Infectious Diseases* 34(Suppl 5), S215–28.
Siddique AK. 1994. Cholera epidemic among Rwandan refugees: experience of ICDDR,B in Goma, Zaire. *Glimpse* 16(5), 3–4.
Sondorp E, Zwi AB. 2002. Complex political emergencies. *BMJ* 324, 310–1.
Sphere. 2012. *The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response*. http://www.Spherehandbook.org/ (last accessed December 2013).
Steet J, Grünewald F, Binder A *et al*. 2010. *Cluster Approach Evaluation 2 Synthesis Report*. Inter-Agency Standing Committee.
SIPRI (Stockholm International Peace Research Institute). 2000. *SIPRI Yearbook. Armaments, Disarmament and International Security*. Oxford: Oxford University Press. http://www.sipri.org/yearbook/2000 (last accessed December 2013).
Tsunami Evaluation Coalition. 2007. *Evaluation Report: Tsunami Evaluation Coalition*. http://www.alnap.org/ourwork/tec.aspx (last accessed December 2013).
UN (United Nations). 2012. *Cluster approach*. http://www.unocha.org/what-we-do/coordination-tools/cluster-coordination (last accessed December 2013).
Wolbring G. 2011. Disability, displacement and public health: a vision for Haiti. *Canadian Journal of Public Health* 102(2), 157–9.
World Bank. 2010. *Natural Hazards, Unnatural Disasters: The Economy of Effective Prevention*. Washington, DC: World Bank.
World Bank. 2011. *Kosovo NGO and civil society*. http://go.worldbank.org/H6JVQ8JY50 (last accessed December 2013).
World Bank. 2012. Improving the Assessment of Disaster Risks to Strengthen Financial Resilience: A Special Joint G20 Publication by the Government of Mexico and the World Bank. Washington, DC: Government of Mexico/World Bank. http://www.gfdrr.org/gfdrr/sites/gfdrr.org/files/GFDRR_G20_Low_June13.pdf (last accessed December 2013).