Humanitarian disasters occur with frightening regularity, yet international responses remain fragmented, with organisations and responders being forced to “reinvent the wheel” with every new event. In many of the natural disasters of the last few decades, there has been an outpouring of well intentioned but sometimes misguided help from uncoordinated and untrained people both outside the established channels and sometimes even through those channels. This has led to everything from perishable food and medical supplies rotting on docksides and at airports, trailer loads of ice left to melt in the sun, winter clothing being sent to tropical areas, and even injury and death of volunteers in the affected areas.

Additionally, these uncoordinated donations and volunteers tend to worsen the situation with confusion and congestion, reducing the effectiveness of relief efforts. Volunteers arriving without their own logistic support also endanger themselves and others who have to look after them and consume scarce resources of shelter, food, and water that might otherwise have gone to some of the victims. It is clearly essential that anyone thinking about volunteering is both informed and prepared and goes through the appropriate channels.

How relief efforts work

For international missions, the official government of the affected country must request aid from the United Nations, other governments, or recognised international non-government organisations. An unaffected agency, often the UN Office for the Coordination of Humanitarian Affairs, is designated as the lead agency and coordinates the response by other groups, including governments and military, reservist, civil, educational, church, and hospital groups. Local non-governmental organisations will play a large part, including the national Red Cross or Red Crescent Society in liaison with the International Federation of Red Cross/Red Crescent Societies.

National sovereignty remains important to affected countries. Entering another country without its permission and without the knowledge and support of your own government raises a long list of real and potential problems that might even be considered an act of war. Humanitarian relief must not become humanitarian imperialism. A colonialist attitude of “I am a do-gooder, and you must make a place for me” disqualifies an individual or group from even considering going. In the current disaster, the Haitian government is still intact, if struggling. It has invited the US Federal Aviation Authority and US military to take over the running of the international airport, a reasonable and predictable response in the situation. Cuba has also helped, opening its airspace for flights to and from the US.

There will always be a push to get people and equipment into the affected zone as soon as possible. The mass media are extremely mobile and will invariably be there before any organised response, commenting on the delays. However, delays are inevitable when there is damage to airfields, ports, and roadways. Damage to homes and other shelters, electrical and potable water supplies, warehouses, food storage and preparation facilities, and healthcare facilities will compromise not only the local response but also that of outside helpers when they first arrive, often ahead of
their equipment and supplies. Sadly, the reality is that if you are not within two hours of the disaster scene, and already have contacts inside the area, it will probably take at least 24 hours to arrive on scene, and even longer to get where you can do some good.

Transport to the affected area is often a problem. Foreign governments pledge funds and supplies, and a wide variety of non-governmental organisations and concerned individuals prepare to fly to the disaster zone. There is always a shortage of cargo charters, which become very expensive and go to the highest bidder, not the most needed services and supplies. Organisations then need to work out how to get their equipment from the airport into the field when roads are blocked or destroyed. Unfortunately, by the time aid arrives several days later, the window of opportunity has closed for most of the trapped and injured.

Because of the loss of medical infrastructure, shelter, and potable water, the number of survivors with major injuries (entrapments, crush injuries, major axial or long bone fractures, head or torso trauma) will fall rapidly during every 12 hours after the incident, even if the weather is moderate. Add in extremes of weather, and the rescue phase (finding, extracting, and treating all survivors) can easily turn into the recovery phase (assisting mobile survivors, recovering bodies, and rebuilding critical infrastructure) in less than 48 hours.

In the meantime, increasingly frustrated survivors are thirsty, hungry, and without sanitation or shelter. They may be at risk from banditry and looting, particularly in a post conflict country such as Haiti; babies continue to be born and their mothers to require caesarean sections. Additionally, special care needs to be observed in the treatment of people who have died in the camps and field medical facilities, as well as other bodies as they are recovered. It is important to be sensitive to local customs, as ignoring them will engender ill will with the survivors, which will affect the acceptance of further care and support by outside agencies.

To identify needs and organise immediate assistance needs, the UN has developed a cluster approach with specified goals. These include:

- Health—emergent and urgent care and preventive medicine
- Emergency shelter to replace lost homes
- Potable water and sanitation to prevent the spread of waterborne diseases
- Logistics efforts to get supplies from the airfields and ports to the areas in need
- Management of camps to prevent overcrowding and the spread of disease, and to ensure equitable distribution of supplies
- Protection and security from theft, mistreatment, abuse, and enslavement
- Distribution of food
- Restoring communications and information technology
- Education to improve the living conditions and ability to provide self support
- Eventual reconstruction and improvement of the local infrastructure.

In addition, the Sphere Project (www.sphere-project.org), a collaboration of organisations active in humanitarian relief, has set out minimum standards for the camps. They state that the total camp area should be 45 m$^2$ per person and provide 15 litres of drinking water per person a day and one latrine for every 20 people. The number of healthcare workers should be sufficient that caregivers see fewer than 50 patients a day.

So you want to volunteer?
Many healthcare professionals from developed countries do not know what to do when faced with the horrors of a major earthquake or other major humanitarian disaster. They are likely to
What to take

To minimise luggage space you should travel in clothing and boots that will be suitable for the conditions when you arrive.

Other essential items include:
• Personal drugs sufficient for the length of stay and expected travel plus at least 7 days. Medications should be in original, individual, clearly labelled containers
• At least one hand towel and two washcloths
• Wet wipes/hand gel
• Ear plugs and eye shades—you will be lucky to have somewhere quiet and dark to sleep
• Tropical strength insect repellent
• Maximum SPF waterproof sunscreen
• Personal water purification kit: at least iodine tablets, possibly one of the more sophisticated filters or reverse osmosis kits.
• Two changes of washable clothing, preferably with long sleeves and trousers
• Long socks
• An extra pair of boots—hiking style with puncture resistant insoles and extending above the ankle
• Weather protective gear appropriate for the location and season
• Appropriate sleeping gear—as a minimum sleeping bag, sleeping mat, and mosquito net
• Light sources:
  - LED head lamp (AA battery with, at least, wide and narrow angle settings)
  - LED hand lamp (AA battery, wind-up, or rechargeable type)
  - LED or fluorescent table lamp (C or D battery)
• Personal radio receiver (AM/FM/shortwave). Choose one with multiple power sources and bring ear phones as they extend battery life greatly. You may also want to bring a wind up external wire antenna for your radio
• Personal protective gear (if not provided by your group)
• Day pack including an integral water bladder
• Two pairs of lightweight leather gloves
• Two pairs of impact resistant glasses, one clear and one tinted for sun protection
• Two pair of prescription glasses if required—contact lenses are often discouraged because of hygiene problems.
• Hard hat with chin strap (even if you are not on a dedicated rescue team)
• Broad brimmed sun hat with a ventilated crown
• Hard shell knee pads

Your organisation may provide a more inclusive list, or even provide some of the equipment for you. Check before bringing personal satellite phones or GPS units, as they are more likely to be stolen, and may mark you as a potential spy. Mobile phones may not be useful because of infrastructure damage or system overload.

be completely unprepared for a situation where there is no running water or electricity or where difficult triage decisions have to be made. They may be unfamiliar with the style of medicine practised in austere conditions with very dirty wounds and they may not speak the local language. They will certainly not have all the equipment and supplies they need because critical items such as intravenous fluids and plaster of Paris are heavy and bulky, and thus harder to transport.

Proper preparation is paramount in providing prompt relief. Prospective volunteers therefore need to join an organised group well ahead of time and go on one or more planned humanitarian missions before trying to deploy for a humanitarian disaster relief effort. They also need to obtain appropriate training and experience to enable them to function in the austere circumstances of a disaster zone—for example, be able to camp under primitive conditions (no running water or flush toilets) for at least five consecutive days, to hike several miles a day in rough terrain carrying personal equipment and water, and to handle extremes of sun, heat, and cold with appropriate clothing. In the US, volunteers are required to undertake a National Incident Management System (NIMS) course so that they are aware of the likely systems and where they will fit in to the system. Other countries run similar training programmes (www.cabinetoffice.gov.uk/ukresilience.aspx, www.publicsafety.gc.ca/index-eng.aspx). Passports and immunisations also need to be kept up to date.

Volunteers should be able to carry out tasks other than their primary role, such as cooking, cleaning, light (non-technical) rescue, communications, and documentation. Other useful skills include basic carpentry, sewing, plumbing, masonry, small engine and electrical work; ability to speak more than one language; and an amateur radio licence, complete with appropriate portable radio(s), antennas, and (solar) recharging gear.

Medical volunteers need further skills:
• At least a passing familiarity with the whole spectrum of field medicine: trauma, general medicine, communicable and infectious diseases, emergency dental care, obstetrics (including emergency caesarean sections), and paediatrics
• An understanding of the special care needed for survivors of crush injuries and entrapment (including handling forced fluid diuresis under austere conditions)
• An ability to treat fractures with just manipulation, splinting, and casting with plaster of Paris—operative management or even radiography will often not be available
• An ability to manage open wound care with cleansing, debridement, packing, and splinting or casting under field (non-sterile) conditions

Coordinated response

Surely, we have learnt enough from the Kashmir earthquake, the many cyclonic storms, the Indonesian tsunami, and now the Haitian earthquake to allow us to set priorities and offer a reasonably coordinated international relief effort the next time this happens? International humanitarian organisations value their independence, which has a prominent place in their respective charters, but that independence must take second place to an effective relief effort.

An international dialogue needs to start, exploring the ways we can improve the response to these events. One suggestion is that if teams and equipment were pre-positioned at around 20 major airfields, they could reach many places within six hours and most within eight hours after notification. Admittedly, this would require appreciable human and material

Helping the right way: patients are treated at a Finnish Red Cross tent in Port-au-Prince, Haiti

credit: Tim Shaffer BMJ|BMJ on 6 February 2010 | Volume 340
resources, but the potential benefits are at least worth investigating. Perhaps the long term rebuilding effort that will occupy Haiti (and other recently devastated areas) could serve as a testing ground for some of the ideas that might come out of such an international effort.

We urge the international medical community to critically examine what our skills can reasonably achieve in a natural disaster and to make room for logistic support when this is more likely to be helpful. Certainly, continued financial support to established humanitarian groups will be needed, and sometimes this support may be the best and most appropriate use of our skills. We have a perfect opportunity in Haiti to work towards true international cooperation, as the bulk of the medical infrastructure of Haiti, and the only medical school in that country, has been destroyed. The Haitians will benefit from a long term commitment to rebuilding, and the world medical community will benefit from the lessons learnt when next we are called on to provide disaster relief.

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See PERSONAL VIEW, p 318

DISASTER MANAGEMENT

BLOGS ON BMJ.COM

Charities in Haiti and other tales

Ishbel Matheson, director of media at Save the Children, defends aid agencies in Haiti against recent criticism in a Lancet editorial. “Aid agencies have been accused of corporate preening and self interest rather than saving lives. Damning stuff and wildly off-target: our staff have been working flat-out now for over two weeks, bringing medicine and basic hygiene kits and deploying monitors to combat child trafficking amid nightmare logistics of a capital city reduced to rubble.”

Tracey Koehlmoos blogs from Dhaka about the medical aid that Bangladesh is providing for Haiti. Both countries linger towards the lower end of the World Bank’s 2008 per capita gross domestic product estimates and receive aid for natural disasters from the World Bank and others, but Bangladesh has learned a lot about disaster management. Famine, cyclones, and floods present a seemingly endless cycle of challenges. “There is solidarity in being able to lend a helping hand,” she writes.

The BMJ editorial team often come across interesting articles, blogs, and web pages. So we have started a new weekly blog called “What we’re reading.” We will post links to a few of these as well as some of our comments. What are you reading? Tell us on the blog.

Harry Brown asks, “Are medical paper texts dead?” Last week Apple launched the iPad, a device which will host ebooks. “This is not a futuristic prediction for some years down the line, I think the revolution is happening now and it is gathering pace,” he urges. On the subject of the iPad, deliver your verdict in a discussion on doc2doc, the BMJ Group’s clinical network for doctors worldwide, at doc2doc.bmj.com

Domhnall MacAuley confesses that he is a TV snow sports enthusiast. “I am interested in the injuries, their prevention, the nature of the trauma and rehabilitation. What I enjoy most is the triumph of athletic endeavour, the thrill of competition, the achievement of greatness, the power of commitment. It’s an escape, an antidote to reality; time out from the drudgery of seasonal minor illness, depression, and chronic disease,” he writes.

To read these and other blogs visit the BMJ blog site at http://blogs.bmj.com/bmj