The Humanitarian Times
November 20, 2002

Humanitarian Response to the Use of Weapons of Mass Destruction

an Invited Review, by Charles Kelly

- This invited review focuses on the problems in preparedness and capability by humanitarian relief agencies to assist in the event of very large attacks on civilian populations with any of several, increasingly-available weapons of mass destruction (WMD).

In modern conflict, more weapons are becoming, in effect, weapons of mass destruction, as their lethality increases & armies cannot or do not separate combatants from non-combatants. Recent attention to the consequences of potential attacks involving Iraq, intl. rebel groups, & escalation of the India-Pakistan (thermo-nuclear) tension confront humanitarian relief organizations with a stark choice over their potential role in assisting civilian populations. Should they curtail operations & withdraw personnel in the face of the possible use of a weapon of mass destruction (WMD) or reinforce their local capacities to provide humanitarian assistance in the event of an attack by a weapon of mass destruction?

Humanitarian aid agencies would seek to respond to instances of the use of weapons of mass destruction, as they do every day in hundreds of other conflicts & disasters worldwide. In current war-zones, non-governmental relief organizations (NGOs, non-profit charitable aid groups) are often forced into tactical withdrawal to safer areas where they prepare material & staff to provide increased assistance as quickly as possible once violence subsides. Unfortunately, non-governmental organizations (NGOs) do not yet have experience with responding to hazards that involve the intentional use of lethal chemical, biological & thermonuclear weapons on civilian populations. So far in history, intl. NGOs have not provided immediate relief around disasters in Halabja, Chernobyl, Lake Nyos, Bhopal or the chemical spills during the Venezuela floods.

The likelihood of the use of nuclear weapons in the India-Pakistan conflict has declined since early 2002. But it raised the awkward question of whether the humanitarian assistance community can respond to the possibly enormous death rates & disability around use of a weapon of mass destruction. Areas safe from a nuclear attack & fallout are hard to identify & probably distant from the areas of human needs.

Underlying this challenge is the fact that no doctrine or strategies exist to guide aid agencies about how to control the health, water, shelter and other consequences of the use of weapons of mass destruction on large civilian populations in remote, resource-scarce parts of the world. In such settings, the US-based paradigm of hospital-based, high-tech response is not feasible. But no alternative has been proposed. The skills & resources needed to address the civilian problems after a nuclear attack are different from what NGOs have trained to for dealing with the primary health care needs (diarrhea, respiratory infections, malnutrition) in famines and refugee camps. NGO guidelines do not address radiation illness & blindness, skin loss from vesicants or mass burns. NGOs are similarly ill-prepared to react to biological, chemical, radiological, industrial sabotage and related threats. Nor do even the state-of-the-art medical protocols for WMD in the US address the treatment of children.

The Red Cross movement recognizes that specialists are required for effective WMD response & therefore does not currently seek to have a lead role in the detection or clearance of WMD agents. Enormous speed is required to protect against (with gas masks & body suites), identify & cleanse certain lethal chemicals, for example. However, NGOs & the Red Cross would readily manage the primary care problems involved in mass migration (& other dislocation & panic) that might be caused by a WMD.

How Weapons of Mass Destruction Emergencies Differ from Other Emergencies

Three key distinctions separate WMD emergencies from the kinds of other emergencies (natural disasters, famine & refugees) that NGOs are geared to respond to at present.

1. Potential for large area of impact

One unique challenge of these weapons comes from their ability to cause large destruction over large areas. Compared to conventional weapons, the impact of a weapon of mass destruction is more likely to be indiscriminate: to include noncombatant populations, even living far from the weapons' main target.

At present, many of the treatment protocols regarding chemical, biological, & nuclear exposure situations were designed with military situations in mind, & not for civilian attacks. As a result, there is a dearth of literature that outlines strategies or tactics for hazard control, quarantine, triage, & mass treatment in a resource-poor areas of the world (namely, most of the developing countries). More-so than in the case of primary disease problems (as seen in refugee camps), WMDs would harm entire families - both parents & children simultaneously, complicating relief efforts which currently aim to empower parents to care effectively for children (e.g. with diarrhea, malnutrition & other manageable illness).

2. Delays in when health and medical effects appear

The medical presentation of WMD victims may not be immediate, will vary over time & include large numbers not immediately affected, but emergent over days or months. Immediate physical trauma may or may not occur with the use of a WMD & there may, depending on the weapon, be proportionally few victims requiring intensive emergency care, as opposed to long-term care (or those who die rapidly).

Many WMD agents cause indirect or delayed health impacts, not the least of which is the psychological impact of a person not knowing whether he or she has been exposed or infected. As well, long-term exposure will accumulate in subtle ways, through contaminated dust, living long periods in closed rooms, or soil, water & land contamination. The primary & secondary health impacts of a WMD will continue for years for large segments of the immediately surviving population. The scope & duration of medical services expected of NGOs will be greatly expanded from those provided following more conventional disasters. Decontamination, public health information, & life support care (possibly on a large scale) may be needed in greater proportion than the surgical (in war zones) or primary health care (refugee camps) NGOs currently implement. A capacity to manage large numbers of patients who are not in critical condition but require interventions to reduce future critical care load will be a new task faced by health care-oriented NGOs. Responding to these conditions will require NGOs to deploy staff with uncommon skills (e.g., decontamination) & a likely reliance on the use of public information (social mobilization) & education to enable potential victims to self-diagnose & self-treat if possible.

3. Unusual Risks to Humanitarian Aid Staff

Much of the current attention NGOs are giving to WMD involves the uncommon risks that aid staff need to avoid in attempting to respond. Rushing into an area affected by a WMD will put relief personnel at significant risk of personal harm from the WMD hazard, with a consequent crippling of relief efforts. Because significant WMD risks are not immediately apparent (without lab testing, for example), it will be difficult for field offices to know when or where they can deploy their teams.

NGOs need to consider use of the "precautionary principle": the assumption of contamination or danger in an area unless positively demonstrated to be safe. First response would be like that in an industrial fire: withdraw to a safe parameter & assess the situation before entering. The step-back approach & delayed entry into areas with appropriate safety equipment only once they have been declared safe are procedures which will be difficult for organizations that are now culturally disposed to live among the local communities & respond seamlessly to disaster areas & victims. Because a precautionary principle could slow assistance operations, field personnel will be tempted to ignore it. Therefore, NGOs will continue to struggle with decisions about how to deliver aid without the aid providers becoming victims as well.

Recognizing that NGO & related intl. relief org. field personnel will take risks in providing assistance, aid org. managers need to define how to (1) limit these risks, (2) ensure that the personnel are aware of the risks they are taking (both a transparency & a liability issue) & (3) prepare for & provide care & support to those relief personnel who become victims.

Strategies to Reduce Civilian Harm from WMDs Will be Different

Much of the effectiveness of NGOs rests on their long-term work with poor communities, effectively predicting & mitigating disasters. For example, the Famine Early Warning System in Africa has allowed early response to save millions of lives due to drought. While early warning systems are key to effective humanitarian response, NGOs do not have yet the means to predict or react to WMD in a manner that would significantly mitigate hazards & harm. NGOs can not now predict whether or when a country will initiate a WMD first-strike.

As in other types of disasters, the victims & host communities will play significant roles in dealing with the disaster. Potential victims of a WMD event need to be informed of anticipated impacts & self-help measures, if only to reduce demands on external assistance. Planning for evacuation from a WMD attack can borrow from evacuation plans for hurricane/cyclones. Similar information needs to be provided to potential host areas, both to alleviate fears of contamination (which would reduce solidarity assistance) & to enable these host communities to prepare for an influx of victims from the affected areas. On balance, information targeted at the host communities may be more important than that targeted to victims, as the perceptions of the host communities will be critical in deciding whether the victims are welcome or rejected by these communities.

The care & assistance to people moving from actual or suspected areas affected by a WMD may be one of the largest immediate tasks faced by NGOs & other relief agencies. Mass movement may be life-saving, depopulating areas into which relief operations may not be able to go safely. Many evacuees may need to be decontaminated, medically assessed, fed, housed, & otherwise cared for as they move from danger to safety. The level & duration of contamination following a WMD event may make return impossible, leading to a need for permanent resettlement & a range of difficult choices & complicated consultations.

Relief Planning & Resource Mobilization

The uncertain impact of a WMD event complicates normal disaster planning & budgeting procedures. The up-front costs of a step-back assessment will be high, if only because the technologies & skills required are unlikely to be widely available. The conventional needs-assessment-proposal-funding-operations process will be seriously constrained by (1) the difficulty in defining the scope of the WMD impact (particularly but not only the health aspects), (2) the likelihood that assessments cannot be completed quickly for large parts of any affected area, (3) the need for a response with no clear end, & (4) a continual identification of new impacts & needs as access is gained to the affected areas.

NGOs & Donors will need to rethink the process & procedures used to finance a WMD response. At present, NGOs would be slow to define exact relief goals in any given WMD event & will resort to expenditure-by-objective response operations, without a clear road map to reach the objectives. In the long-term, developing competency within an NGO would entail considerable expense, for maintaining equipment & material for WMD relief teams & the in-depth, specialized & repeated training.

Prospects for New & Strange Bedfellows

Government efforts to deal with the WMD threat rests largely within the domain of the intelligence, public safety & military communities. NGOs are shy about making contacts with these communities, which, in turn, tend not to widely disseminate threat information.

Much of the current literature on dealing with WMD hazards has been produced by military organizations. These materials may articulate approaches which either are not acceptable to NGOs or won't work where humanitarian assistance organizations normally operate, in poor, developing country settings. The scale of a likely WMD event suggests that assigning military personnel to work out of uniform for NGOs won't be a sufficient solution to provide the number of personnel needed for post WMD event management & operations. A tight linking of uniformed military to NGO personnel in the field, as happened in Northern Iraq, may be difficult to plan & raises significant policy issues for both military & humanitarian systems. Military resources, particularly those available through NATO & from successor states to the Soviet Union, may be the best trained & equipped to deal with a range of WMD consequences.

As a result, humanitarian organizations may find themselves incapable of providing effective relief, unless they can link themselves to the military and security response to WMD events and provide specifically needed services and assistance. Past humanitarian assistance operations provide useful lessons about dealing with large-scale humanitarian crises. But, unless NGOs & international org's recognize that a WMD event will be unlike previous humanitarian crisis & prepare accordingly, their effectiveness in providing critically needed assistance following a WMD event will not meet expectations, or the real needs of the victims.

Useful information on dealing with Weapons of Mass Destruction, include:

- Dr. Ken Curley's comprehensive review/web-links for chem/bio/nuclear weapons preparedness at the Center for Disaster & Humanitarian Assistance Medicine (USUHS): *http://www.usuhs.mil/cbw/new_page_1.htm*
- WHO's guidelines on intentional use of biological/chemical weapons at: *www.who.int/emc/deliberate_epi.html*
- *www.Paho.org/English/PED/Bioterrorism..htm.*
- "Biological & Chemical Terrorism: Strategic Plan for Preparedness & Response", ***Morbidity & Mortality Weekly Report***, Centers for Disease Control & Prevention, Atlanta, GA, 49/RR-4, April 21, 2002.
- "Chemical & Biological Agent Incident Response & Decision Process for Civilian & Public Sector Facilities: Ellen Raber et al., *Risk Analysis*, 22/2, 2002.
- *www.Fema.gov*. including: *http://www.fema.gov/rrr/conplan/conpln3b.shtm*
- "Integrating Human-Caused Hazards Into Mitigation Planning" FEMA Publication No. 386-7, September 2002
- Field Operations Guide for Metropolitan Medical Strike Team, Office of Emergency Preparedness, Department of Health & Human Services, Rockville, MD.
- http://*www.Redcross.org/services/disaster/keepsafe/unexpected.html*
- Improving Local & State Response to Terrorist Incidents Involving Biological Weapons, Domestic Preparedness Office, U.S. Army Soldier & Biological Chemical Command, Department of the Army, Department of Defense.

Charles Kelly is an expert in emergency relief & disaster mitigation, who has worked extensively with NGOs, international org's & donors. His email is *72734.2412@Compuserve.com*

The Humanitarian Times thanks the Cuny Center for its ongoing support.

- please send comments, questions & debate to *The Humanitarian Times* via *HTimes@msn.com*

- to subscribe or to un-subscribe to *The Humanitarian Times*, write to *HTimes@msn.com*