ICRC

Humanitarian response to the use of biological weapons: Lessons from the naturally occurring Ebola outbreak of 2014-2016

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1. INTRODUCTION

The naturally occurring Ebola virus disease outbreak in Guinea, Liberia and Sierra Leone from 2014 to 2016 led to at least 28,646 people falling ill and 11,323 deaths.[1] The pandemic highlighted the fragility of international response mechanisms for global health emergencies, including the humanitarian response to which the International Red Cross and Red Crescent (RC) Movement contributed. The RC Movement response was led by the International Federation of the Red Cross and Red Crescent (the Federation) – which is the lead agency in the Movement for disaster response – in close cooperation with the National RC Societies in afflicted countries (and some from outside the region), and with support from the International Committee of the Red Cross (ICRC) – which is the lead agency for humanitarian response in armed conflict and internal strife.[2]

The ICRC's operational involvement in the Ebola response was relatively limited in comparison to the wider RC Movement due to its specific mandate for humanitarian assistance to victims of armed conflict and other situations of violence, and the fact that the outbreak occurred primarily in three post-conflict countries where the ICRC had either no presence (Sierra Leone) or a limited operational presence (Guinea and Liberia). Nevertheless, the ICRC provided support to the wider RC Movement response and carried out some significant activities, in particular in Liberia, focusing on some niche areas receiving less attention in the wider response to the crisis, and including seeking to ensure the continuity of non-Ebola related humanitarian assistance.[3]

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[1] WHO data for all cases worldwide up to 27 March 2016, http://apps.who.int/ebola/ebola-situation-reports.

[2] ICRC (2014) *Ebola: Stepping up the humanitarian response*, 23 September 2014, https://www.icrc.org/en/document/ebola-stepping-humanitarian-response.

[3] Such ICRC activities included, but were not limited to, humanitarian operations to:

- support to health structures to deliver quality preventive and curative care to non-Ebola patients;
- establish nutritional protocols and supplement the daily food rations in case management centres;
- provide cash assistance to discharged patients as well as families of victims;
- support authorities and other actors in the safe disposal of waste, in the provision and access to clean water and the promotion of disease-prevention measures among the public;
- supplement the food rations of around 2,000 detainees, and help ensure that these detainees have more hygienic living conditions and are better protected from the Ebola virus; and
- equip and train health staff, humanitarian workers and NS volunteers to reduce their health risks, for example, during disinfection or waste management operations.

Experiences with the humanitarian response to this naturally occurring outbreak hold lessons for preparations to respond to the use of biological weapons, and are relevant for States considering ways to strengthen the implementation of article VII of the Biological Weapons Convention (BWC) – the provision of assistance to States in case of use, or threat of use, of biological weapons. However, there is an important distinction between assistance to a State under article VII and assistance to victims as part of a humanitarian response. The latter must always focus on protecting and assisting affected people, without excluding assistance to the affected State(s).

Many of these lessons have relevance beyond the response to a deliberate outbreak of Ebola, and may also be applicable to responses to the deliberate use of other biological agents, in particular those with epidemic and pandemic potential. The fact that the use of biological weapons may, depending on the circumstances, be perceived at first (and even for some considerable time) as a naturally occurring disease outbreak underscores the relevance of the lessons learned.

Nevertheless, it is important to recognize that, if it is known (or even suspected) that an attack with biological weapons has occurred, any response is likely to be further complicated, due to the particular security concerns and the unique difficulties in providing an international humanitarian response, as the ICRC has previously outlined.[4]

First, there are the many complex practical aspects of developing, acquiring, training for and planning an appropriate response capacity to assist victims; second, there are issues related to the deployment of this capacity; and third, there are issues raised by different mandates and policies of relevant international organizations, and how these organizations interact. Specific considerations in the event of alleged use of biological weapons (as opposed to naturally occurring outbreak) are that:

- it is unlikely that the biological agent or the area of use will be immediately known;
- there will likely be a gap between identification of the biological agent (required to treat victims) and the determination of whether the release was deliberate;
- information may be hard to obtain on the type of event, who is affected, where they are, and what their needs are, but this information will be essential to assist those affected;
- a response to assist victims may generate additional security risks to humanitarian organizations and their workers, since it may be perceived as a verification of use, and perpetrators may wish to prevent outside organizations having knowledge of the event;
- it is not clear which organizations would mount an international response to assist victims, who would coordinate it, and how it would be triggered; and
- it is not clear whether some organizations involved would bring assistance only to the affected State, or also directly to victims.

An overarching issue, to which many of these challenges relate, are the particular risks to the health and security of personnel bringing the assistance.

[4] For further details see: Coupland R and Loye D (2009) International assistance for victims of use of nuclear, radiological, biological and chemical weapons: time for a reality check? *International Review of the Red Cross*, No. 874, pp. 329-340; Loye D and Coupland R (2007) Who will assist the victims of use of nuclear, radiological, biological or chemical weapons – and how? *International Review of the Red Cross*, No. 866, pp. 329-344. See also: ICRC (2014) *Statement by the International Committee of the Red Cross.* Working Session 1: How to strengthen implementation of Article VII, Meeting of States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, Meeting of Experts, Geneva, 4 August 2014.

2. LESSONS LEARNED

i) Establishing a humanitarian response framework, and capacity building

The lead and responsibility for any response to assist victims of a humanitarian emergency, such as disease outbreak, always rests with the host government of the affected country. The strength of the national public health system and availability of resources and infrastructure is central to any response. However, these capacities vary greatly between different countries and different regions of the world, and some countries are much better equipped to cope with a disease outbreak, such as Ebola, than others. This would hold true for a deliberate outbreak as well.

Therefore, the primary activities that States can carry out in order to fortify the humanitarian response to both naturally occurring and deliberate outbreaks are: to determine the framework for response, including the roles and responsibilities for different government departments and coordination with international organizations and NGOs; and to build and strengthen the capacity of public health systems, including training of medical personnel. Depending on resources, this may necessitate government assistance to other governments to help build this capacity where it is lacking. However, this type of assistance cannot be effectively carried out at the time of a crisis and must be carried out in advance, and over the long term. During a humanitarian emergency the emphasis of the response must be on direct assistance to victims in order to be most effective.

If an outbreak occurs in a country that is not able to effectively respond, enormous pressure will be placed on humanitarian organizations to supplement the response by providing direct assistance to victims. However, as also demonstrated by the difficulties in containing Ebola, the current international capacity to mount such a response is limited. These limitations are likely to be even more acute, and the pressure greater, for a humanitarian response to the use of biological weapons for the reasons mentioned in the introduction to this paper, and in particular considerations of the safety and security of humanitarian workers (see Section 2, iii).

These realities require humanitarian organizations that might be involved in a response to the use of biological weapons to carefully consider their role and capacity, and coordination with other organizations. The ICRC has been developing its capacity to respond to the use of chemical, biological, radiological and nuclear (CBRN) weapons with a humanitarian response framework that has three objectives. Firstly, to minimize the risks to health, safety and security of people to whom the ICRC has a duty of care; secondly, to ensure the integrity of the ICRC's operations and continuation of its activities; and thirdly, contingent on the first two objectives, to provide assistance to affected people, to the extent possible. Other organizations that might be involved in a response may wish to consider the response framework developed by the ICRC.[5]

However, it is also critical for States to recognize the limits of capacity in humanitarian organizations to respond to the use of biological weapons. The ICRC, through its work over the past ten years, has built a capacity to minimize the risks to its staff and ensure continuity of its operations but it would be no match in bringing effective assistance to victims of large scale use of CBRN weapons.

[5] Malich G, Coupland R, Donnelly S, and Nehme J (2016) Chemical, biological, radiological or nuclear events: The humanitarian response framework of the International Committee of the Red Cross. *International Review of the Red Cross* No. 899, pp. 647–661; Malich G, Coupland R, Donnelly S, and Baker D (2013) A proposal for field-level medical assistance in an international humanitarian response to chemical, biological, radiological or nuclear events. *Emergency Medicine Journal* 2013, No. 30, pp. 804-808.

ii) Improving coordination, and understanding the roles of different actors

Coordination among those contributing to the humanitarian response to Ebola was a significant difficulty. There were many different constituencies involved in the response – including host States, assisting States and their militaries, international organizations dealing with public health (e.g. WHO), humanitarian organizations specialising in health - in particular Médecins Sans Frontières (MSF) – and those specialising in disaster response (e.g. the Federation and National RC Societies) and humanitarian assistance in armed conflict (e.g. ICRC). The lead and responsibility for any humanitarian response always rests with the host government. However, where that government is unable to provide assistance to victims or needs external support in its response, including from other States through the BWC's article VII provision, it is important that the mandates and working methods of different organizations are well understood and respected.

In this context it is necessary to recall the core principles of humanitarian work – particularly impartiality and independence – and to recognize the differences in the way different types of organizations provide assistance. Humanitarian organizations, such as the ICRC, the Federation, and National RC Societies operate by providing direct assistance to victims and to medical infrastructures, whereas external governments and other international organizations – such as WHO – mostly provide support to the affected States in delivering their own response.

The needs of the affected population, the capacity of the host country's health system and the ability to mount a humanitarian response, are also very much context dependent, relating to the nature of the outbreak, the resources of the affected States, the organizations present in the region at the time, and whether it occurs in armed conflict or other situations of violence. For example, the scope of the ICRC's involvement in the response to the Ebola outbreak was influenced by its mandate, the needs of those affected, the degree to which the ICRC was already present in affected countries, and the resources and expertise available to it.

In preparing for a humanitarian response to any use of biological weapons there is need to improve coordination among different actors. This would be aided by better mapping the current capacity, limits, roles, mandates and working methods of relevant organizations in order to avoid unnecessary duplication or complication of existing humanitarian response mechanisms and ensure better coordination during an emergency.[6]

iii) Safety and security of humanitarian workers

Humanitarian workers – both medical and non-medical – are the basis of any humanitarian response, and the Ebola outbreak highlighted problems with ensuring sufficient human resources to provide the needed assistance. Staffing operations in Ebola affected areas with qualified and trained personnel proved difficult due to the particular risks presented by working in the midst of the pandemic, in particular the risk of infection but also security concerns, as highlighted by the attacks on Ebola-responders, including Red Cross volunteers.[7]

The ICRC has a duty of care to its staff carrying out humanitarian operations. In the case of Ebola this required education about the risks (to prevent both infection and further spread of disease) and a comprehensive plan of the activities needed in order to evaluate and then

[6] ICRC (2015) *Statement by the International Committee of the Red Cross*. Meeting of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Geneva, 14-18 December 2015, https://www.icrc.org/en/document/meeting-states-parties-1972-biological-weapons-convention-december-2015.

[7] ICRC (2015) *Red Cross Red Crescent denounces continued violence against volunteers working to stop spread of Ebola*, 12 February 2015, https://www.icrc.org/en/document/red-cross-red-crescent-denounces-continued-violence-against-volunteers-working-stop-spread; ICRC (2015) *Lessons learnt from the Ebola epidemic*, 29 May 2015, https://www.icrc.org/en/document/lessons-learnt-ebola-epidemic.

mitigate the risks, thus ensuring proper training and provision of appropriate personal protective equipment. Critically, this plan included putting in place plans to care for staff members should they become infected, ensuring logistics for medical evacuation, countries willing to accept an infected person, and appropriate treatment facilities in those countries to provide the required medical care.

A major problem for international humanitarian workers coming from abroad to work in Ebola affected countries were the limitations placed on their movement afterwards and, especially, the lack of willingness from other countries to assist them should they become infected. Lack of options for medical evacuation, logistical constraints and limited coordination between States to facilitate evacuation, transit, repatriation and medical care was a major hindrance for the ICRC. It is important to recognize that these issues can have a direct impact on the ability of international humanitarian organizations to deploy the required staff as quickly as needed, and therefore on the effectiveness of the response.

In the case of known or suspected use of biological weapons, the political and security sensitivities might further prevent access to some international organizations, and to some specific nationalities or religions. In addition, it is very likely that issues of safety and security of humanitarian workers would become even more acute due to the added security risks and uncertainties involved. Some international organizations, including humanitarian organizations, may not be willing or able to send their staff to potentially contaminated areas, depending on their specific health and security policies.

iv) Access for humanitarian organizations and their workers

A central requirement for any effective humanitarian response is access to the affected region and people. It is paramount in the case of any humanitarian emergency, including disease outbreaks (naturally occurring or deliberate), to facilitate access for responders.

During the Ebola outbreak restrictions on movement – in particular due to border restrictions, and flight and ship cancellations – caused difficulties for movement of humanitarian workers (and equipment) in and out of affected countries and, at times, shifted the focus and international debate towards security measures and away from the humanitarian needs of affected people. In the case of a deliberate outbreak, if known or even suspected, and especially in an area of active conflict, these issues would likely be even more difficult, highlighting the need to facilitate the access of impartial and independent humanitarian actors such as the ICRC without interference or hindrance in order to allow for an effective humanitarian response.

v) Availability of equipment and resources

During a public health crisis such as a pandemic the demands for specific resources, such as personal protective equipment and medicines, can increase dramatically, as witnessed during the Ebola outbreak. These are needed both to ensure safety of humanitarian workers and to ensure the ability of medical staff to treat affected people.

It may be necessary for governments, and indeed organizations involved in any response, to have some contingency stockpiles of key equipment in case of an emergency and/or a reserve capacity to increase production in times of crisis. However, regular risk assessment, planning and coordination of the response can go a long way to resolving problems relating to timely provision of equipment and resources to ensure that patients are treated most effectively.

In the case of a known or suspected use of biological weapons these problems of demand could be exacerbated by the specific circumstances and the nature the armed conflict, and

depending on which governments or organizations have the relevant resources and what priorities are decided for their allocation. It is important that access to these resources is available for impartial and independent humanitarian actors such as the ICRC in order to allow for an effective humanitarian response.

vi) Maintaining basic services and continuity of other humanitarian operations

During the Ebola outbreak there was a natural focus on establishing treatment centres to care for patients, and to trace disease cases in order to stem the spread of the pandemic. These activities were absolutely central to the humanitarian response. However, it is important to recognize the relevance of other elements of the response not directly related to treatment of patients including – to use an example of an activity National RC Society volunteers were heavily involved with – dead body management and ensuring safe burials.[8] Other key activities during such an emergency include maintaining other basic public services, such as primary and secondary health care services, water and sanitation, and transport. An example of such an activity carried out by the ICRC included its support to the re-opening of a maternal health clinic in Liberia.

Another less well-recognized issue is the importance of ensuring continuity of other humanitarian operations ongoing in affected countries. For example, the ICRC continued its operations in places of detention in Liberia and Guinea to the extent possible, adjusting them to limit the risk of an outbreak of Ebola within the prison population.

All these activities contribute to helping contain an outbreak and facilitating the recovery in the affected country and its population. In the case of a biological weapon attack, especially within an armed conflict, these activities would remain important but some could become even harder to implement, depending on the particular context.

vii) Implications of military involvement in humanitarian response

The Ebola outbreak highlighted questions about military involvement in any humanitarian response. While such involvement may provide some advantages, in particular in terms of logistical support, such as facilitating medical evacuations or helping establish treatment centres, there may also be risks posed by military association with impartial and independent humanitarian assistance, which could negatively affect the ability to access victims. It is important, therefore, that military actors involved in an emergency medical or health mission respect their commitments under established guidelines for the use of military and civil defence assets in humanitarian response and disaster management, including respect for the distinct and independent roles of humanitarian actors.

The implications of military involvement could vary dramatically according to the context. If a naturally occurring outbreak occurred in the midst of an armed conflict, or a known or suspected use of biological weapons occurred, then military engagement with any humanitarian response would clearly be much more difficult. Based on the relevant provisions of international humanitarian law, its mandate, and the Fundamental Principles of the Movement, in general the ICRC would remain particularly cautious about the use of military or civil defense assets during an armed conflict or in other situations of violence. More broadly, there would also be concerns about the risk of humanitarian assistance being instrumentalized for political or military goals.

[8] IFRC (2014) *Burying Ebola's victims in Sierra Leone*, 26 July 2014, http://www.ifrc.org/en/news-and-media/news-stories/africa/sierra-leone/burying-ebolas-victims-in-sierra-leone-66528/; IFRC (2016) *Body Team 12: The story of an Oscar-nominated Red Cross Ebola responder*, http://www.ifrc.org/en/news-and-media/news-stories/africa/liberia/body-team-12-the-story-of-an-oscar-nominated-red-cross-ebola-responder--72057/.

3. IMPLICATIONS FOR STATES PARTIES TO THE BWC

The naturally occurring Ebola outbreak of 2014-2016 highlighted the limitations of humanitarian response to assist the victims of such disease outbreaks; a response that would likely be even more difficult and strained in the case of a known or suspected use of biological weapons, especially if it occurred during an armed conflict.

The experience from Ebola provides some concrete lessons for States, and for humanitarian organizations, in preparing to respond to the use of biological weapons, and underlines the importance of collaborative work between States Parties to the BWC in fulfilling their obligation to provide assistance to States affected by the use, or threat of use, of biological weapons. The reality is that assistance to governments must begin well in advance of any such use, and preparations for an international response to assist victims must be greatly strengthened.

In light of this, States Parties to the BWC must renew their preventive commitment to ensuring biological weapons are never again used, and strengthen the range measures that form a "web of prevention" to support this goal.

As one of these measures, States should work to improve preparedness for responding to the use of biological weapons. From the ICRC's perspective, the focus of these efforts must be on enhancing the capability to assist the victims, including improved mechanisms, such as those under article VII of the BWC, to help States achieve this goal.

In this respect, agreement to strengthen the implementation of article VII should remain a high priority for the November 2016 Review Conference of the BWC and beyond.

The ICRC calls on States Parties to establish a working group – or similar working process – to develop and agree on practical actions to build response capacity where it is lacking, to improve coordination among those who may be involved in a response, to address current obstacles to an effective response, and ultimately to limit the adverse humanitarian consequences in case of use of biological weapons.