

# NUCLEAR WEAPONS

## CHALLENGES FOR PROVIDING HUMANITARIAN ASSISTANCE



*“As things stand, there is no effective way of delivering humanitarian assistance to victims of a nuclear blast.”*

International Committee of the Red Cross, 2013



### EFFECTS OF A NUCLEAR WEAPONS EXPLOSION

The principal characteristics of a nuclear weapon explosion are as follows:

- Thermal radiation (or heat): likely to ignite flammable materials, capable of producing large firestorms, may cause incineration and burns and other severe injuries such as blindness;
- Blast waves and high-speed winds: originating in the rapidly expanding fireball of the explosion and may cause injuries similar to those from conventional explosives;
- Ionising radiation and radioactive fallout: generated and released during the explosion, these may cause radiation sickness or chronic injury (eg. genetic damage).

Hiroshima: the Prefectural Industrial Promotion Hall, better known today as Atomic Bomb dome, was one of the few buildings left standing in a 2 km radius in August 1945.

### What are the immediate needs of victims?

Assistance to survivors will need to include immediate field-level medical care in the form of first aid or interventions by qualified medical staff. However, it is important to bear in mind that the severity of many injuries will be beyond medical treatment. Survivors will also need to have access to shelter to reduce on-going exposure to radiation.

Other immediate assistance would include supplying uncontaminated water, food, shelter and clothes, managing flows of people fleeing the area (some of whom may be contaminated), and recovering, identifying and storing or disposing of dead bodies.

### Implications for the delivery of humanitarian assistance

The scale of destruction and enormous numbers of people affected by the explosion of a nuclear weapon in a populated area are likely to pose huge challenges for the delivery of humanitarian assistance, particularly in relation to prioritising needs and allocating depleted resources. Operations providing medical assistance will need to plan for the triage and treatment of large numbers of severely injured victims, the possible need for decontamination and transfer of people out of affected areas. Access to some areas would be impossible for considerable periods of time owing to debris, damage to infrastructure and risk of radiation exposure for responders. Any planned deployment to areas affected by a nuclear event will need to take into consideration the risks to responders, whose safety is a prerequisite for effective humanitarian assistance.

Because of the magnitude of a nuclear weapon explosion, many emergency responders will also be dead or requiring assistance themselves so the capacity and numbers of immediate local responders would be critically depleted. This would also be an issue in terms of medical supplies and facilities many of which would also be destroyed.

National emergency response capacities would likely need support from other countries in providing humanitarian assistance. At present, however, there seems to be insufficient capacity in international assistance, to deliver the breadth and type of aid that would be required.

These factors constitute serious challenges to providing effective assistance to survivors in the event of a nuclear explosion.

## SUMMARY

The use of a nuclear weapon with even a relatively small destructive power near a populated area is likely to produce humanitarian needs that will be very difficult to address. Many survivors are likely to require urgent medical care for a wide range of serious injuries, shelter to shield them from the ongoing risks of exposure to radiation, and other urgent humanitarian assistance.

However, the significant destruction of infrastructure and large contaminated areas would seriously complicate the delivery of humanitarian assistance to those in need. In addition, radiation would pose serious risks to the health of assistance providers and special protection measures would need to be taken.

There is presently no effective capacity at the international level to deliver appropriate humanitarian assistance to survivors if nuclear weapons were ever to be used.

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