1. What is an emergency?

Emergencies are situations that demand immediate action and response. Natural events such as floods, hurricanes or earthquakes, and armed conflicts or wars can all lead to public health emergencies.

In some situations, outbreaks of disease can also lead to an emergency. Hospitals themselves can sometimes worsen an epidemic because they are badly designed, damaged or not able to function properly. Other causes of emergencies include: tsunamis, famine, drought, chemical spills, and large-scale accidents.

Emergencies can take a heavy toll on human life and health. Natural disasters alone have killed 235,816 people in 2008, a death toll that was almost four times higher than the average annual total for 2000–2007. Two events – Cyclone Nargis which left 138,366 people dead or missing in Myanmar, and the Sichuan earthquake in southwestern China which killed 87,476 people – accounted for the vast majority of deaths. Natural disasters affected 211 million people in 2008 and cost US$ 181 billion. Asia was home to nine of the countries in the world’s top 10 for disaster-related deaths. Floods were one of the most frequent disasters along with other weather-related events.

2. How do emergencies affect health facilities?

By damaging or destroying hospitals and other health facilities, emergencies can disrupt or even halt life-saving services. Structural and infrastructural damage may be devastating exactly at the time when health facilities and health services are most needed. Health workers and patients can be killed in collapsing hospitals. The number of other deaths and injuries is compounded when a hospital is destroyed or can function only partially. Health facilities should be able to provide care when disasters strike but, if they are damaged or put out of action, the sick and injured have nowhere to get help.

But functional collapse, not structural damage, is the usual reason for health facilities failing in emergencies. Functional collapse occurs when the hospital or clinic can no longer perform because the disaster has overloaded the system. Not only are survivors of a disaster unable to receive care, but people who need routine health services are left without them. These include women who need help in child birth, children who need routine vaccines, and those who need regular treatment for HIV/AIDS or depend on dialysis or surgery to stay alive.

Disasters may destroy not only architectural spaces, such as laboratories or operating theatres, but also:

- wipe out medical records as well as medical and support services;
- damage non-structural elements, such as water heaters or storage tanks, mechanical equipment, shelving and cabinets, which enable the facility to operate and often account for 80% or more of the facility’s cost;
- kill or displace health workers, thus compromising care for the sick and injured;
- prevent the delivery of medical supplies, equipment, food, water and other critical resources;
- leave facilities with limited capacities to help when equipment and drugs are looted.

3. Why keep hospitals safe?

The first reason to keep hospital safe is to save lives and protect health. When the work of hospitals and other health facilities is disrupted or their buildings are damaged, both urgent and routine health care is interrupted and may be halted altogether – leaving the sick and injured without the care that they need.

The second reason for keeping hospitals safe is to protect investment. The most costly health facility is the one that fails. Hospitals and health facilities are enormous investments for any country and their destruction or
damage imposes major economic burdens. In some countries, up to 80% of the health budget is spent on hospitals and other health facilities. Rebuilding a hospital that has been destroyed virtually doubles the initial cost of the facility.

In some situations, a failed hospital can also create social instability and this is the third reason for making hospital safe in emergencies. Public morale can falter and political discord be ignited if health and emergency services fail during emergencies. Conversely, an effective emergency response and functional health service can reinforce social stability and cohesion. Hospitals are a haven for the public during conflicts and other emergencies due to their neutrality, impartiality and ability to protect a community’s social and health capital.

4. How vulnerable are health facilities to emergencies?

More than half of the 16,000 hospitals in Latin America and the Caribbean are in areas at high risk for disasters. In other parts of the world, the vulnerability of health facilities has been evidenced in the damage caused to them during emergencies. For example:

- 2001: a magnitude 7.7 earthquake in Gujarat, India, destroyed 3812 health facilities.
- 2003: an earthquake in Algeria rendered 50% of health facilities in the affected area non-functional.
- 2004: the Indian Ocean tsunami affected national and local health systems that provided health services for millions of people. In Indonesia’s northern Aceh province, 61% of health facilities were damaged.
- 2005: the earthquake in Pakistan completely destroyed 49% of health facilities in the most-affected areas, from sophisticated hospitals to rural clinics and drug dispensaries.
- 2008: in the area of Myanmar affected by Cyclone Nargis, 57% of all health facilities suffered damage and one in five was completely destroyed.
- 2008: more than 11,000 health facilities were damaged or destroyed by the earthquake that struck China on 12 May.
- 2008-2009: during the three-week Gaza Strip emergency, 16 health staff were killed and 25 injured while on duty, 15 hospitals and 41 primary health centres and 29 ambulances were damaged.

5. What role do health facilities play in emergencies?

Health facilities play vital roles during emergencies by providing acute emergency health care to the injured such as emergency surgery and blood transfusions. They provide life-saving services to the critically ill – as in outbreaks of communicable disease. Health facilities deliver longer-term medical and health care to communities, such as maternal and child services, management of chronic diseases and mental health services and psychosocial support, in urban, rural and remote areas. Health facilities also offer triggers for the early warning and detection of communicable diseases by regularly collecting and analysing data on cases and deaths, and provide critical health services, through therapeutic feeding centres, laboratories, blood banks, ambulance services, rehabilitation facilities, aged care facilities and pharmacies.

6. How can we protect health facilities from emergencies?

Planning and preparation are needed to protect health facilities and ensure they can keep providing health care during and after emergencies. Also building hospitals safe from disaster or making existing ones safer by retrofitting can be cost-effective.

- Assess the safety of your hospital.
- Protect and train health workers for emergencies.
- Plan together for emergency response.
- Design and build resilient hospitals.
- Adopt national policies and programmes for safe hospitals.
- Protect equipment, medicines and supplies.

7. How expensive is it to make a health facility safer?

Building a hospital is a significant capital investment. In calculating the cost, one must include both the structure itself and the non-structural elements. However building health facilities safe from disaster or making existing ones safer by retrofitting is surprisingly cost-effective. In many new health facilities, incorporating disaster protection from earthquakes and extreme weather events into the designs from the beginning will add no more than 4% to the cost. The extra cost will become negligible if the health facility is resilient and can keep providing care during emergencies. Retrofitting non-structural elements in an otherwise structurally sound facility costs about 1% of the hospital’s budget but will protect up to 90% of its value.