



Flood

Last update: 2022-03-22

Key facts

- Flooding is a common disaster. Acute and/or severe flooding can cause loss of life, significant infrastructure damage and displacement of the affected population.
- Floods are often characterized by difficulty in accessing certain geographical areas. Depending on the severity, it can take days or weeks for floodwater to recede.
- Flooding is exacerbated by climate change.
- Floods often damage the health facilities and their services, impacting access to essential care such as maternal and child health care.
- Drowning and trauma (injury) are most likely during a flood or in the immediate aftermath. In the days, weeks (and sometimes months) following a flood, the main health concerns include diarrhoeal diseases, vector-borne diseases, respiratory and skin infections and other adverse health outcomes.

Main health impacts

Health concern	Risk factors
Diarrhoeal diseases	Contamination of water supplies by flood water, damaged or destroyed sanitation facilities, crowded areas and poor hygiene practices.
Vector-borne diseases	Floods can result in an increase in breeding sites for mosquitoes in stagnant water, and after some time an increase in transmission of dengue, chikungunya and/or malaria. Other vectors such as rats can be affected and their number increased because of poor hygiene conditions, bringing them in closer contact with humans, and leading to an increase in incidence of Leptospirosis.

Health concern	Risk factors
Respiratory illnesses, skin disease and vaccine-preventable diseases	Significant population displacement and overcrowded, communal emergency shelters coupled with poor hygiene can lead to respiratory illnesses or skin diseases. Flood water does not increase the risk of tetanus, but emergency responders and community members may be at increased risk for wounds and injuries that become contaminated with flood waters, soil, dirt, human or animal waste. It is important that Red Cross Red Crescent responders are up to date with tetanus vaccination.
Malnutrition	Flooding can lead to a loss of food stock and crops, which can increase the risk of malnutrition.

Priority actions for teams with community and public health response capacity

Immediate steps	<ul style="list-style-type: none"> • Provide first aid and ensure ambulance transport for injured and “near drowning” survivors. • Identify key disease risk factors and implement prevention and preparedness activities. • Identify and support authorities to manage possible sources of toxic contamination.
Surveillance	<ul style="list-style-type: none"> • Activate disease early warning systems • Assess existing surveillance mechanisms (if any). Determine, if there is a need, the extent to which the National Red Cross Red Crescent Society could feasibly support community-based surveillance efforts. If necessary, set up a community-based surveillance system. • If vector control is needed, consider household vector surveillance and community clean-up activities for vectors and breeding sites to reduce vector density.

Community-based action and social mobilization

- Implement Risk Communication and Community Engagement (RCCE) focusing on measures to prevent water and vector-borne diseases.
- Support the social mobilization component of emergency vaccination campaigns as needed.
- Ensure procedures are in place to safely manage human and animal corpses.
- Support in restoring family links.
- Assure convenient clothing and accommodation facilities for population in movement.
- Support survivors of sexual or gender-based violence.
- Ensure access to mental health and psychosocial support (MHPSS) services for community members and staff/volunteers which may include (but are not limited to): regularly assessing MHPSS needs; providing information on the situation regularly in cooperation with authorities; training volunteers on the provision of psychosocial support (PSS); using mobile teams providing a range of support; embedding PSS into evacuation centre/shelter facilities; providing special support to vulnerable groups; working closely with authorities in family tracing; coordinating points for further care. See further reading: IFRC Key actions for PSS support in flooding.
- Identification in the community of cases of high-risk diseases (see list of disease tools below) and referral to pre-identified health structures. This requires a prior elaboration of a referral pathway, that is, mapping of existing primary health facilities, and assessment of minimum quality care standards and accessibility (including geographic and cost-related barriers).

For teams with additional clinical response capacity

Please always refer to the appropriate local or international guidelines for clinical management.

List of important primary health care interventions during floods

- Ensure triage, treatment and referral for injured and “near drowning” people.
- Support continuity of main service delivery including maternal and child health services.
- If disrupted, advocate and/or support authorities to ensure access to services and medication for patients with noncommunicable disease (NCD) and who require palliative care.
- Specific primary care interventions for diarrhoeal diseases, respiratory tract infections, Hepatitis A, typhoid, skin infections, snake and insect bites.
- Treatment for malaria, dengue and other vector-borne diseases.
- Care of minor wounds and skin infections.
- Tetanus vaccination.

Disease tools that may be relevant

- > Hepatitis A
- > Measles
- > Malaria
- > Cholera
- > Acute respiratory infections (ARI): Influenza (avian and seasonal)
- > Chikungunya
- > Dengue fever
- > Diphtheria
- > Diarrhoeal diseases
- > Hepatitis E
- > Leptospirosis
- > Meningococcal meningitis
- > Pertussis (whooping cough)
- > Poliomyelitis (polio)
- > Rubella
- > Typhoid fever
- > Zika virus infection (Zika)