

## Areas Of Humanitarian Crisis

For humanitarian aid workers and those advising those travelling to areas of conflict or disaster

### Key Messages

**The Foreign and Commonwealth Office website should be checked to assess safety and security risks at the destination and whether there are any travel restrictions**

**Additional hazards that need to be considered include:**

- **exposure to the environment that precipitated the crisis**
- **damaged infrastructure with resultant limitations in food, water, accommodation, lodging, transport, and healthcare**
- **reduced levels of security and protection**
- **the psychological challenges of being exposed to the effects of the crisis**

**Travellers should have adequate travel insurance or other means to pay for healthcare should they fall ill**

**Maintaining the health of aid workers, volunteers and others travelling to affected areas is important to avoid additional strain on already challenged local emergency services**

**Travellers should carry a personal medical kit as healthcare and medical supplies may be limited**

**Deferment of travel should be considered when the risks to the traveller are assessed to be high**

### Overview

Humanitarian crises due to natural (hurricanes, droughts, floods, tsunamis and earthquakes) or

man-made (war and conflict) disasters can occur without warning. Individuals may travel to these areas to volunteer or work, or visit relatives or friends, often at short notice. Those planning to visit affected areas should be aware of possible hazards and the increased risk of injury and illnesses. Those wishing to assist in these areas should be advised to avoid travelling independently, but contact appropriate aid/charity agencies to see how best they can help.

Risk management advice should follow that of the general traveller and be tailored as described below.

- Destination-specific risk management advice can be found on the [Country Information pages](#).
- Details of crises and disasters can be found on the [ReliefWeb website](#) and World Health Organization (WHO) [natural disasters profiles](#).

## Pre-travel preparation

Travellers should seek information about the current situation in advance of travel to an affected area. The situation may be evolving so it is important access up-to-date, reliable information on the specific areas affected. [The Foreign and Commonwealth Office website](#) should be consulted prior to planning travel to assess safety and security risks at the destination and whether there are any travel restrictions.

Travellers should ensure they are up to date with all routine immunisations, and ideally see their healthcare provider at least 4-6 weeks before travel for advice on vaccinations, malaria chemoprophylaxis (if appropriate), food and water precautions, risks from insect bites, and injury prevention. However, even if travelling at short notice, pre-travel advice is still important and worthwhile. For aid/disaster relief workers who travel at short notice, maintaining 'core' vaccinations to be trip-ready should avoid the need for last minute vaccines.

Travellers with pre-existing medical conditions should discuss the suitability of travel with their doctor, and if on prescribed medications, ensure they have a sufficient supply to cover their time abroad. In some situations deferment of travel should be considered when the risks to the traveller are assessed to be high.

Travellers should be alerted to additional challenges such as:

- Exposure to the environment that precipitated the crisis
- Broken infrastructure with resultant limitations in food, water, accommodation, lodging, transport, and healthcare
- Reduced levels of security and protection
- The psychological challenges of being exposed to the effects of the crisis

Travellers should identify in-country healthcare resources in advance of their trip, and ensure they

have adequate travel insurance or other means to pay for healthcare should they fall ill. As healthcare facilities and medical supplies may be limited, travellers should carry a personal medical kit including a sterile medical kit.

Volunteers/workers travelling with an organisation should contact their occupational health or health and safety department. They should ensure that they are familiar with, and follow their organisational health and safety policies and medical evacuation arrangements. Their organisation may have deployment specific briefings and training, and should be able to provide personal protective equipment and a travel health kit.

## **Food and water risks**

Limited supplies of clean drinking water may increase the risk of diarrhoeal illnesses.

Following guidelines on personal and food and water hygiene [1] is sensible but these measures do not offer full protection [2] so travellers should always be prepared to manage the symptoms of traveller's diarrhoea.

Reliable sources of bottled water may not be available and water purification may be necessary.

Water can be reliably disinfected by bringing it to a rolling boil [3,4]; although if this is not convenient, consideration should be given to chemical treatments. The effectiveness of chemical treatments can be reduced by low water temperatures and suspended matter in the water, so travellers should follow the instructions carefully to obtain the best results. Chlorine preparations are usually effective, but protozoan parasites such as *Cryptosporidium* and *Giardia* are not always inactivated by these agents [5]. Studies have shown chlorine dioxide to be more effective at inactivating parasites [6]. Using a water filter that has a filter size of  $\leq 0.2 \mu\text{m}$  to  $1.0 \mu\text{m}$  before using a chemical disinfectant is helpful as water filters can remove suspended matter and parasites if they are functioning correctly. Following an European Union (EU) directive, iodine is no longer available for disinfecting drinking water.

Portable, battery-operated devices utilising UV light can also be used to purify water. Water must be free of particulate material before treating. This method may not be practical if large quantities of water need to be disinfected.

Personal hygiene, including frequent hand-washing, is essential. Alcohol gel can be helpful when hand-washing facilities are not available

Despite best efforts, travellers' diarrhoea can be difficult to avoid. Medications for self-treatment of diarrhoeal illness are available for travellers to take with them. These can include oral rehydration preparations, an anti-motility agent such as loperamide, and in the absence of contraindications, a treatment course of antibiotics. Fluoroquinolones are often the drugs of choice when indicated [7]; ciprofloxacin (750mg as a single dose or 500mg twice daily for three days) is prescribed most commonly for travellers to Latin America and sub-Saharan Africa. In some parts of South and

Southeast Asia where fluoroquinolone resistant *Campylobacter* and *Shigella* are more common azithromycin (1,000mg single dose or 500mg once daily for three days) is an appropriate choice [8,9].

Rifaximin is also licensed for the treatment of travellers' diarrhoea in some circumstances, but clinical data has shown that rifaximin is not effective in the treatment of invasive enteric pathogens that cross the gut wall such as *Campylobacter*, *Salmonella* and *Shigella* [10], suggesting that the overall usefulness of rifaximin as a self treatment option remains to be determined.

The combination of loperamide with an antibiotic in moderate travellers' diarrhoea may lead to more rapid clinical improvement compared with either agent alone [11].

Travellers should seek medical care if symptoms do not improve within three days [12]. They should seek medical care immediately if they have a fever of 38°C or more, blood and/or mucous in the stool or other worrying symptoms such as altered mental status, severe abdominal pain, jaundice or rash.

## Vector-borne risks

Disasters such as cyclones, hurricanes, and flooding, can affect vector-breeding sites and result in increased vector-borne disease transmission. Strict [bite avoidance measures](#) must be emphasised to reduce the risk of vector-borne diseases; and provision of specific advice on diseases such as dengue, leishmaniasis, Japanese encephalitis and malaria should be provided as appropriate.

## Malaria

Country specific malaria advice is available on the [Country Information pages](#), and where appropriate, travellers should follow the ABCD approach to preventing malaria (Awareness, Bite avoidance, Chemoprophylaxis - if appropriate, and Diagnosis).

## Vaccination

Travellers should be up-to-date with immunisations routinely administered in the UK, including MMR. Information on specific health risks and vaccination requirements and recommendations, can be found on the [Country Information pages](#). Additional vaccinations should also be considered for those at occupational risk if there is an outbreak of a vaccine preventable disease at the destination e.g. [diphtheria](#), [polio](#) or [varicella \(chickenpox\)](#). The outbreak section of the [Country Information pages](#) should be reviewed for details of ongoing outbreaks.

In addition, the following should be considered:

## Cholera, hepatitis A and typhoid

These are transmitted through contaminated food and water. Damage to sewage systems and contamination of local water supplies in endemic countries may increase the risk. Vaccination should be considered for those with limited access to safe water and whose activities put them at higher risk of exposure

## Hepatitis B

This is transmitted by exposure to infected blood or bodily fluids, vertically from mother to child, and percutaneously. Hepatitis B vaccine is recommended for travellers whose behaviours or plans place them at risk. This includes long stay travellers and those involved with patient care or who are likely to have contact with blood or bodily fluids.

## Rabies

This is usually transmitted through the saliva of an infected animal, usually by a bite or when saliva from an infected animal comes into contact with broken skin or mucous membranes (eyes, nose, or mouth). Contact with wild or domestic animals during travel should be avoided. Access to rabies vaccine and post exposure immunoglobulin may be limited so a full course of pre-exposure vaccination should be considered before departure. If vaccine is required overseas, it should be of World Health Organization approved standard from a reputable source; travellers are also advised to seek advice on return to the UK.

## Tetanus

Tetanus is transmitted via wound contamination with the bacterium *Clostridium tetani*. A booster dose of tetanus vaccine is recommended if not received within the past 10 years. In the United Kingdom, when a tetanus booster is recommended the trivalent tetanus, diphtheria and polio vaccine, is the vaccine of choice.

## Other health risks

### Environmental risks

The risk of injury in areas affected by humanitarian crises is high. Physical hazards such as debris, electrocutions from downed power lines, structural damage to buildings, roads and basic services pose a potential risk. Dust inhalation, trauma, and exposure to extremes of temperature with the risk of hypothermia, sunburn and heat exhaustion are additional risks [13].

Toxic industrial chemicals and hazardous waste may have been released during the devastation and may be a concern.

Particular care should be taken if wading in flood waters to reduce the chance of injury and secondary infections of any cuts in the skin with bacteria such as *Vibrio vulnificus*. The risk of

leptospirosis should also be considered, as flooding facilitates its spread. Protective clothing should be worn when in direct contact with contaminated animals, sewage or water. Doxycycline (200mg for adults, weekly) can be considered as prophylaxis for those who are unable to avoid exposure.

Snakes displaced from their natural environment may be encountered and should be avoided. It is not appropriate to carry snake anti-venom, but if bitten seek medical attention urgently. Knowledge of first aid measures is essential.

## Psychological health

Travellers should be psychologically prepared the stress, ethical, and moral challenges related to the crises and the resource capacities of the situation. Support from fellow workers and family may be helpful.

## Risk from dead bodies

The infectious disease risk from handling dead bodies is low [14,15], however workers handling dead bodies should always follow universal precaution, and in a few situations such as deaths due to haemorrhagic fevers specific precautions are necessary.

## Resources

- [Centers for Disease Control and Prevention \(CDC\). Health recommendations for relief workers responding to disasters](#)
- [Public Health England \(PHE\). Ebola virus disease information for humanitarian aid workers](#)
- [Foreign and Commonwealth Travel Advice](#)
- [ReliefWeb latest natural disasters](#)
- [World Health Organization Humanitarian Health Action](#)
- [World Health Organization Natural disaster profiles](#)

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