

Haiti Earthquake (12th January 2010) Disaster Risk Assessment



Date 22nd January 2010

Updated: 26 October 2010

Purpose of Risk Assessment:

To identify, minimise and advise in response to public health related risks following the earthquake of Tuesday 12th January in Haiti. This advice is intended for use by Consular staff, the FCO Rapid Deployment Team and British Nationals currently in Haiti.

This document is to be used in conjunction with existing guidance from your organisation.

***This risk assessment has been updated to include information about the cholera outbreak declared by PAHO on 22 October 2010.**

Update

A detailed risk assessment of the main hazards that may be expected to be encountered in Haiti, are set out below. The principal severe risks identified by the HPA are:

- Malaria
- Gastrointestinal diseases, especially typhoid and hepatitis A
- Rabies

Anybody traveling to this area must ensure they have taken all reasonable precautions to protect against, and if necessary treat these diseases.

Health risks identified

1. **Vector borne diseases**
 - a. **Falciparum malaria** is endemic (risk is high)
 - b. **Dengue** is present, but degree of risk is currently unknown (the day biting Aedes Aegypti mosquito vector is present throughout the country)
 - c. **Lymphatic filariasis** (elephantiasis) is widespread in urban areas, especially in the Department of the North.
2. **Vaccine preventable diseases**
 - a. **Measles** and **diphtheria** appear to be controlled and not likely to be an immediate risk.
 - b. The last cases of **polio** identified were due to vaccine strain disease and would not appear to be a risk at the present time.
 - c. **Tetanus**
3. **Gastrointestinal diseases**
 - a. **Diarrhoea** and **gastroenteritis** are the second leading cause of death in the general population, especially in children.
 - b. **Typhoid** is endemic
 - c. **Hepatitis A** is endemic
 - d. **An outbreak of cholera** was declared on 22 October 2010, with over 3000 cases and 250 deaths reported.
4. **Chronic communicable diseases**
 - a. **Tuberculosis** is the sixth most common cause of death in the country.

- b. **AIDS** is epidemic (>5% of the population). This could create difficulties if there is a need to access local blood donations/blood products.
- c. **Leprosy** is endemic, although its true prevalence is not known.
- d. **Hepatitis B** is of intermediate endemicity (2-7% of the population)

The chronic communicable diseases listed are not likely to be of immediate risk to consular services/British Nationals.

5. **Acute respiratory infections**

- a. **Flu/pneumonia**
- b. **Pandemic H1N1 influenza (swine flu)**

6. **Zoonoses**

- a. **Rabies** is present with most identified cases occurring in the Port-au-Prince metropolitan area. Canine vaccination is in place
- b. **Anthrax** is endemic in the departments of the North, Southeast and the Artibonite. Little data is available to evaluate risk.
- c. **Leptospirosis** may pose a risk from contaminated water sources.

7. **Non-infectious environmental hazards**

- a. Access to potable (fit for human consumption) water is a major problem
- b. Inadequate management of excreta and household refuse causes contamination of surface waters
- c. There is no control of clinical waste
- d. Carbon monoxide from portable generators
- e. Building collapse
 - i. Trauma (injuries, fractures, crush syndrome, lacerations)
 - ii. Acute respiratory distress (dust inhalation)
 - iii. Hypothermia
 - iv. Burns and electrocution
- f. Dehydration and sun exposure
- g. There are risks of poisoning from scorpion stings and spider bites (including black widows and tarantulas)
- h. There are a number of venomous (venom producing) tree snakes in Haiti. However, these snakes are NOT poisonous: the dose of the venom is not sufficient to cause any significant health effects in humans.

8. **Local health care systems**

- a. Damaged/collapsed health care facilities
- b. Access to regular medication is not available. Take adequate supplies of all regular medication.

9. **Damage to industrial infrastructure causing environmental pollution/contamination**

- a. Haiti has a limited industrial base however, there are fuel depots, power generation and water treatment facilities on the island, as well as LPG (liquid petroleum gas) cylinders.

10. **Personal safety**

Whilst personal security is not directly health related, it is an issue in Haiti and staff must be trained in security measures before going to Haiti. It is important that any personnel going there are familiar with these procedures to ensure their and their colleagues safety. There are reports of hijacking of vehicles and looting in the aftermath of the earthquake.

11. **Psychological/emotional responses**

Providing relief in the aftermath of a devastating event such as an earthquake may have implications for your emotional and psychological health. It is important to take sufficient time to rest, recuperate, eat and drink. It may help to talk to co-workers, family and friends about your experiences.

Advice on minimizing risks

General practical advice

- Only use clean water from an assured source (not mains water) and beware of dehydration.
- Maintain good personal hygiene (soap and water are sufficient). Use disinfectant wipes to supplement supplies if soap and water are not available.
- Arrange access to emergency medical supplies and seek immediate help if bitten by local animal (especially dogs) or if you have a fever >38C
- Dead bodies are unlikely to pose a significant health risk.
 - o This belief that dead bodies pose a health risk is wrongly promoted by the media, as well as some medical and disaster professionals.
 - o Dead bodies do not cause epidemics after natural disasters.
 - o The political pressure brought about by these rumours of health risks associated with dead bodies causes authorities to use unnecessary measures such as rapid mass burials and spraying so-called "disinfectants."
 - o The consequences of mismanagement of the dead include mental distress and legal problems for relatives of the victims.
 - o The surviving population is much more likely to spread disease.
 - o Although dead bodies in themselves are unlikely to pose a risk, be aware of possible chemical contamination from the use of 'disinfectants' such as caustic soda.
- Avoid high risk foods such as salads, shellfish, raw/undercooked meat and fish, and unpasteurised dairy products.
- Eating food from an assured source is always advised.
- If you come into direct contact with bodily fluids or aerosols of bodily fluids, further advice should be sought.
- Beware sun exposure and consider: "Slip on a shirt, slop on the sun cream, slap on a hat"
- Take a personal first-aid-kit
- **Vector borne disease**
 - o Minimize exposed skin
 - o Use an insect repellent (100% DEET recommended for clothing and 50% for exposed skin)
 - o Bed nets (permethrin-treated if possible)
 - o Take antimalarial prophylaxis where available (1st choice mefloquine, 2nd choice doxycycline). The recommended self treatment regime is Malarone. This regime has been recommended to cover travel plans which may include several countries in the region. If working purely in Haiti, chloroquine or proguanil are suitable for prophylaxis as is usually recommended by the [National Travel Health Network and Centre](#), the [HPA Advisory Committee for Malaria Prevention in UK Travellers](#), and [Fitfortravel](#) (NHS Scotland Travel advice service).
- **Vaccines:** Recommendations on pre-deployment vaccinations
 - o All vaccines recommended for the UK, including the MMR
 - o In addition, the following are recommended: Hepatitis A, Rabies, Typhoid, Tetanus, **Cholera**
- **Blood products:** Use of local blood / blood products to be avoided
- **Rabies:** Avoid animals and report all bites/scratches
- **Diarrhoea:** Medications for self-treatment of diarrhoeal illness are available. These can include: oral rehydration preparations, an anti-motility agent such as loperamide, and in the absence of contraindications, a treatment course of ciprofloxacin (500mg twice daily for up to three days). Individuals with diarrhoea that is associated with fever or blood should seek prompt medical evaluation.
- **Respiratory or skin infection:** Recommended self treatment is Augmentin.

For clarification on any of the issues raised in this risk assessment, or in the event of difficulties, please phone 01980 612100 and ask for the ERD Duty Officer.