

MALARIA

High risk (exclusively *P. falciparum*) exists throughout the area. Travelers die every year from falciparum malaria.

Don't take a chance – take anti-malarials!

- Practice insect precautions at all times (even daytime, as mosquitoes carrying dengue are day-biters)
 - Wear light-colored clothing that exposes as little skin as is practicable.
 - Apply a repellent containing DEET (concentration 30 to 35%) or picaridin (concentration 20% or greater). Apply to all exposed nonsensitive areas of the body. Frequent application ensures continuous protection (usually every 4 to 6 hours or as directed on label for high-concentration products).
 - Treat outer clothing with permethrin
 - If not sleeping in a sealed, air-conditioned room, sleep under a permethrin-impregnated bed net.
 - If possible, use an aerosol insecticide before going to bed and a vaporizer device throughout the night.
 - Outdoors, a smoldering pyrethroid coil can be used to reduce flying insects.
- Chloroquine protects against malaria in this area. Most relief workers should use chloroquine (1st tablet a week (or at least 1 to 2 days) before travel to Haiti, then weekly until 4 weeks after return). Common alternatives include doxycycline (but has significant sun exposure concerns) and Malarone (atovaquone/proguanil). These alternatives require daily dosing.
- Because no preventive measure is 100% effective, seek immediate medical attention for any fever or flu-like illness occurring within a year of return home. Be sure to tell your health care provider your travel history.
 - Malaria symptoms can include fever and flu-like illness, including chills, headache, muscle aches, and fatigue. Malaria may also cause low red blood cell counts (anemia) and yellowing of the skin and whites of the eye (jaundice).

OTHER ISSUES

- The number one threat to relief-workers is food and water-borne disease. Follow these basic rules:
 - Boil it, Peel it, Cook it, or Don't eat it.
 - Drink reliable bottled, boiled, or halogen treated water. Do not assume that all bottled water is treated.
 - Carry "traveler's diarrhea" medications loperamide and ciprofloxacin. Even if medical providers are available, supplies will be limited. Take your own anti-diarrheals, but seek medical advice, if available, before using.
 - Always seek medical attention for diarrhea accompanied by fever or bloody stools.
 - Most important treatment for most tropical diarrhea is drinking plenty of clean(!) water (or oral rehydration solutions) to maintain hydration.
- Protect yourself from sun exposure with clothing, sunscreen (at least SPF 15), and sunglasses (ideally wrap-around, with 100% UV protection).
- Due to extremely high levels of dust and other air-borne particulates, respiratory disease or compromise poses a significant risk. Persons with asthma or other ongoing respiratory condition should not travel to Haiti at this time; healthy persons should carry and wear masks.
- Wash your hands! Bring hand sanitizer as clean water for washing may not be available.
- Because of elevated risk of rabies in Haiti, avoid furry animals and report exposure to saliva, scratches, or bites promptly to health authorities.
- Significant electrocution hazards exist: Unless you can be sure any wire is physically disconnected from any possible power source, assume the wire is live or could become live without notice! Expect generators to be improperly connected and backfeed into remaining wiring infrastructure leading to sudden unexpected presence of lethal current.
- Potential relief workers who are pregnant should consider other ways to be of assistance. Pregnant women are especially advised to avoid areas where malaria exists, such as Haiti, because of increased health risks to both the mother and unborn child.

COMPILED BY SHORELAND, INC.
PUBLISHERS OF TRAVAX®

PREPARING RESPONDERS: HAITI 2010

The Obvious

- Haiti will be hot and humid
- Poor infrastructure for water and sanitation
 - almost non-existent in many locations
- Food/water-borne illnesses will be prevalent
 - food/water precautions are critical!
- Power lines are down
 - assume any wire is live
- Sun exposure will be significant
 - precautions are essential
- Availability of medical support is limited
 - even for responders
 - carry a personal medical kit
- Immunizations always important for Haiti

Not So Obvious

- Mosquito-borne illnesses are a risk in Haiti
 - includes dengue and malaria
- Rabies is always present in Haiti
- Snakes will be displaced into uncommon areas
 - increased risk of encounters
- Violent crime should be expected
 - even against relief workers
- Toxins and/or irritants likely in air and water
- Haiti has amongst the world's highest TB rates
- HIV is prevalent
- Dust and rubble pose significant respiratory risk
 - wear masks
 - do not travel to Haiti if you have asthma or other respiratory condition



Additional information about responding to a disaster can be found at the CDC page: www.bt.cdc.gov/.

PRE-TRAVEL ASSESSMENT

Avoid being “part of the problem”

Prospective relief workers should be in good health with no predictable need for medical support during any relief-work travel. Anyone with physical disabilities that require accommodation should consider other means to support relief. Anyone with chronic diseases that may be affected by changes in activity level, harsh environments, lack of optimal storage for medications, or exposure to airborne allergens/irritants should consult with a medical provider before considering travel. Diseases of special concern would include diabetes, cardiovascular diseases, and respiratory diseases (do not travel to Haiti if you have asthma or other respiratory disease).

Anyone who is deconditioned (“out-of-shape”) or has musculo-skeletal conditions that may flare with poor sleeping environments or significant physical requirements should also think twice.

Injury Prevention:

The risk of injury during response to a natural disaster is very high.

- Wear sturdy footwear to protect feet from widespread debris.
- Any wound or rash has the potential for infection, and such wounds or rashes should be assessed by a health-care provider as soon as possible. Any wounds, cuts, or animal bites should be immediately cleansed with soap and clean water and assessed for rabies risk. Familiarity with basic first aid is advised to self-treat any injury until medical attention can be obtained.
- Assume any structure is unstable unless it has been cleared by qualified engineering personnel.

ROUTINE IMMUNIZATIONS

All “routine” immunizations should be current:

- **Tetanus/diphtheria.** Very important for relief work. Adequate primary series plus 1 dose of Td (or Tdap) within the last 5 years (versus usual 10, so as to minimize need for booster in case of a dirty wound while in Haiti). Adults who have not received at least 1 previous dose of any acellular pertussis-containing vaccine should receive Tdap vaccine at least once, in place of a Td booster.
- **Measles.** Indicated for those born in 1957 or later (1970 or later in Canada) without history of disease or of 2 adequate doses of live vaccine at any time during their life. Refugee situations can be accompanied by measles outbreaks.
- **Varicella.** Indicated for all persons born outside the U.S. or born in the U.S. after 1979, except for persons with an adequate vaccination history (2 lifetime doses), reliable evidence of previous infection, or laboratory confirmation of immunity.
- **Pneumococcal.** All adults over 65, all smokers, all asthmatics, and those with chronic diseases or compromising conditions. Anyone in this latter category should carefully consider, with their physician, whether this relief travel is advisable.



Shoreland, Inc.
P.O. Box 13795
Milwaukee, WI
53213-0795 USA
www.shoreland.com

© 2010, Shoreland, Inc.

May be reproduced for Haiti relief purposes

OTHER IMMUNIZATIONS

- **Influenza:** potential for epidemic outbreak in refugee conditions, so all travelers should receive both types of currently available influenza vaccinations.
 - 2009 H1N1 influenza
 - Seasonal influenza

For both flu vaccines: Anyone expecting close contact with refugee populations within 10 days after receiving vaccine should receive injectable vaccine instead of live, attenuated, intra-nasal vaccine (to decrease risk of transmission to immune-compromised individuals).

There is a significant risk of food- and water-borne illness, so vaccine is necessary against:

- **Hepatitis A.** Normally a one-time, 2-shot series, optimally completed before travel. Single dose IS protective, so start series now and complete later.
- **Typhoid.** The injectable vaccine (single dose) is better in this situation as the oral vaccine requires regimented dosing over a one week period.

Other:

- **Hepatitis B.** Relief work will often result in contact with blood or body fluids so vaccination against hepatitis B is important. This is a multi-dose vaccine series for optimal benefit, but it is better to initiate the series and complete during travel (if available), or on return. A single dose is not protective. An accelerated dosing schedule may be used (doses at days 0, 7, and at 21–30 days with a booster at 12 months).
- **(Rabies).** This vaccine would be optimal for relief workers, but this series requires at least 3 weeks (optimally 4 weeks) to complete. A person with an incomplete series should be treated as not being vaccinated, so *initiation of this series will not be beneficial unless travel is delayed.*