

# HEALTH GUIDELINES



# & REQUIREMENTS

**Master of Arts in Climate Change and Global Sustainability**

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### GENERAL INFORMATION

To protect your health in Iceland and Tanzania, you need certain pre-departure immunizations followed by reasonable health precautions while in the country. In Iceland, health and safety standards are similar to those in the US and as in the US, students should always use caution in unfamiliar places and circumstances. During your stay in Tanzania, the following health guidelines and requirements are designed to inform you of health concerns that may be present especially as you venture to smaller cities off the usual tourist track, or spend time in small villages.

It is essential that you review these health guidelines and requirements with your physician, to discuss individual issues such as pre-existing medical problems and allergies to particular drugs. Any further questions or concerns should be directed to the US Centers for Disease Control and Prevention (CDC) in Atlanta ([www.cdc.gov/travel](http://www.cdc.gov/travel)) or to your own physician.



*SIT Graduate programs may venture off the usual tourist track. Pay careful attention to health and safety guidelines.*

## PREVENTION OF INSECT-BORNE ILLNESSES

### Malaria

Malaria is present in Tanzania and prophylaxis is recommended. CDC guidelines suggest that prevention of malaria is possible if you carefully follow personal protective measures as described below and take one of the following antimalarial drugs (listed alphabetically) as directed by your health care provider: atovaquone/proguanil (Malarone), doxycycline, or mefloquine. **The selection should be discussed with your physician or health-care provider.** If, in spite of adherence to these preventive measures, you develop symptoms of malaria, prompt medical attention lessens the severity of the illness.

### Personal Protective Measures

The following insect precautions should be followed, especially after dark, to prevent mosquito bites that may transmit malaria:

- Wear long-sleeved shirts and long pants.
- Use mosquito netting over bedding.
- Use insect repellents on bedding and netting. (e.g. permethrin – commonly known as Permanone).
- Use insect repellents on skin and clothing. DEET-containing products (e.g. Off, Off Deep Woods, Jungle Juice, and Muskol) may be used on skin in concentrations up to 30–40% and on clothing in higher concentrations. Permethrin (Permanone) may also be used on clothing.

SIT suggests that if you have further questions, do not hesitate to contact the Malarial Division of CDC at 888-232-3228 for recorded information or visit the CDC website: <http://www.cdc.gov/malaria/travelers/index.html>

**Please note:** There is no risk of malaria in Iceland.

### Dengue

Dengue is a viral disease and is transmitted by mosquitoes which bite primarily in the daytime. It occurs in urban as well as rural areas in Zanzibar. There is no licensed vaccine against it, but personal protective measures against mosquito bites are effective in prevention. Insect repellents, protective clothing such as long-sleeved shirts and pants, plus the use of Permethrin-treated mosquito netting are therefore essential. The disease causes considerable discomfort

(fever, body aching), but is self-limited in adults in most cases.

## PREVENTION OF FOOD- AND WATER-BORNE ILLNESSES

Food and water standards in Iceland are similar to those in the United States. In Tanzania, the best way to avoid “traveler’s diarrhea” or other diseases from contaminated food and water is to respect certain do’s and don’ts:

**DO WASH** your hands scrupulously with non-contaminated water and soap before eating and snacking.

### DO DRINK

- Bottled or canned beverages (water, soda, soft drinks) from a trusted source (ensure caps are sealed).
- Hot beverages (coffee, tea).
- Water that has reached a rolling boil for at least one minute at sea level (longer at higher altitudes).
- Carbonated mineral water.

### DON’T DRINK

- Tap water, even in ice; don’t risk using it for brushing your teeth either.
- Tap water in larger cities is often safe, but the water in rural areas is probably not, so be sure to check with a reliable source before using, and if in any doubt, take all the recommended precautions.

### DO USE

- Commercial iodide or tinctured liquid iodine to treat water, **ONLY** if bottled water (from a trusted source) is not available and boiling water is not possible. Chlorine in various forms is less reliable than iodine. These provide substantial protection when added to tap water.

### DO EAT

- Cooked vegetables, fruits with thick covering (citrus, bananas, and melons); and well-washed raw fruits and vegetables.
- Meat or fish that is thoroughly cooked (pork and lamb should be very well done).
- Pasteurized dairy products from large commercial dairies.

### DON’T EAT

- Unwashed or unpeeled raw fruits and vegetables.
- Fruits that do not have a thick, disposable outside covering.
- Rare or raw meat or fish or shellfish.
- Dairy products from small, independent vendors without pasteurizing facilities, including food of any kind that has been left out in the sun, especially custards, creams, and mayonnaise.
- Raw (unpasteurized) milk or milk products. Tuberculosis and brucellosis, both serious diseases are transmitted in this way, so the consumption of unpasteurized milk and milk products should be strictly avoided.



There may be times when refusing an offer of food or beverage, even a drink with ice or avoiding a salad will be considered rude. You must decide for yourself, but polite refusals, thought out in advance, are often handy. Discuss these alternatives with the local SIT staff.

### Diarrhea-Producing Infections

“Traveler’s diarrhea” is a self-limited diarrhea lasting from a few to several days, characterized by watery, non-bloody bowel movements. Traveler’s diarrhea usually requires no treatment other than fluid replacement including ORS (the World Health Organization’s oral rehydration solution which comes in package form) or other homemade solutions such as 1 teaspoon salt, 1/2 teaspoon baking soda, and 2–3 tablespoons sugar or honey in 1 liter of **clean** water; or carbonated soda diluted by one half. Antidiarrheals such as Imodium or Lomotil may be used short-term in some circumstances. Pepto Bismol in large amounts and certain antibiotics (doxycycline, sulfa-TMP, ciprofloxacin) can prevent or attenuate the infection. Antibiotics are indicated for more severe cases of traveler’s diarrhea.

## Hepatitis A

Hepatitis A is a highly contagious virus that causes liver inflammation. It is most commonly spread through contaminated food and water. Most Americans have not previously been exposed to the hepatitis A virus and are at risk of contracting the disease during travel to areas where the disease is more prevalent. A very effective vaccine is available and should be administered 2–3 weeks prior to travel.

## Schistosomiasis (bilharzia)

Schistosomiasis is prevalent in Tanzania. It is acquired by contact with fluke-like parasites, which live on freshwater snail hosts and can penetrate the skin of people and animals, causing serious illness. There is at present no chemoprophylaxis or immunization for this, but it can be avoided by following these guidelines:

- **DO NOT SWIM OR WADE IN FRESH WATER.**
- If using untreated water that comes directly from a freshwater source such as canals, lakes, rivers, streams or springs-heat bathing water to 50°C (122°F) for 5 minutes. This will destroy the parasites. Iodine treatment alone *will not guarantee* that water is safe and free of all parasites.
- Filter untreated water with a tightly woven cloth or with paper filters. This may also be effective in removing the parasites from untreated bathing water.
- If accidental exposure to suspected water occurs, immediate and vigorous towel drying or rapid application of rubbing alcohol to exposed areas may reduce the risk of infection.

**Please note:** Properly chlorinated water that is piped into homes, chlorinated pools and salt water are generally safe from infectious diseases. If you suspect that you are infected, contact a doctor or hospital *immediately* and obtain urine and stool tests. If you do test positive, praziquantel is the treatment of choice.

## Cholera

Cholera is an acute intestinal infection caused by a bacterium (*vibrio cholerae*). It is usually mild and self-limited but can be associated with severe, profuse watery diarrhea requiring medical attention for fluid replacement. *The guidelines for preventing diarrheal infections apply to preventing cholera as well including strict*

*food and beverage precautions and hygiene measures.* The Cholera vaccine is now available in the US and should be administered at least 10 days prior to travel.

## Typhoid Fever

Typhoid is an infection caused by a particular species of the salmonella bacterium. It is spread by contaminated food and water. Symptoms include fever, severe toxicity, rash, and in about half the cases, bloody diarrhea. Untreated, there is a 30% mortality rate. Vaccines are 60–70% effective in prevention. One vaccine involves a single injection, with immunity lasting 2 years. A second one is administered orally every other day for 4 doses, and lasts 5 years. Antibiotic resistance has been developing, but treatment of the disease with certain well-known antibiotics is usually effective. As with all diarrheal illnesses, careful dietary discretion continues to be the main line of defense.

## OTHER DISEASES

### Prevention of Animal Bites and Infections

Rabies risk occur in mainland Tanzania (primarily dogs) and to a minimal extent in Zanzibar. *Strict adherence to the following is important for a safe and rabies-free experience:*

- Avoid bites from all animals and especially avoid handling or feeding puppies, kittens, monkeys, or other animals. They can have rabies before it is obvious.
- If you have been bitten or have had direct contact with the saliva of a suspected rabid animal, immediately wash the affected area with a soap solution and running water thoroughly to neutralize and to rinse out the virus. **Then proceed immediately for post-exposure treatment**, the sooner the better.
- If at all possible, the animal should be captured and kept under cautious surveillance until the diagnosis and therapy are completed. If capture is not possible, a clear description of the animal and the circumstance of contact should be carefully recorded.

## Hepatitis B

Hepatitis B is a serious and often chronic viral infection of the liver. Since this type of hepatitis is most often acquired from contact with infected blood, sexual contact (as with HIV), or skin-to-skin contact of mutual open cuts and sores, appropriate precautions to avoid

these types of exposure are necessary. This includes avoiding getting tattoos, or ear/body piercings and avoiding cuddling children with sores or draining insect bites. A series of three immunizing injections is recommended. This series should be initiated as early as possible so that at least two doses are taken prior to departure. This will provide partial protection. The third shot should be taken five months after the second dose, and may be given after returning home to achieve full, long-lasting immunity. An accelerated schedule can also be used as an alternative.

### AIDS and blood supplies

AIDS is a concern worldwide. AIDS is an acquired immune deficiency that can result in life-threatening infections. The HIV virus is transmitted by way of bodily fluids from an infected person. Abstinence is the surest way to prevent contracting the disease via sexual transmission. It is the student's responsibility to protect him /herself from acquiring the disease through sexual transmission. Students anticipating even the possibility of sexual activity are strongly urged to use condoms and if possible bring their own condom supply. Other potential routes of infected blood transmission such as tattooing, body piercing and needle sharing must be strictly avoided.

With regard to blood transfusions, our local staff have identified hospitals, through consultation with the local US embassy, where safe blood is available. In a life-threatening situation, the risks versus benefits of an emergency blood transfusion must be examined carefully and a decision made based on the best information at hand.

### Tuberculosis

Tuberculosis (TB) is a bacterial disease spread by airborne droplets from a person with untreated pulmonary TB or by ingestion of TB-contaminated unpasteurized milk products. Transmission is more likely in conditions of crowding and poverty. A TB skin test can indicate prior exposure to tuberculosis and is recommended prior to travel (unless already known to be positive). A repeat test is also recommended after returning to the US even if the pre-departure test was negative.

### Sun Exposure

SIT recommends the use of sunglasses, wide-brimmed hats, sunscreen lotions, and lip protection to reduce problems related to sun exposure.



### IMMUNIZATIONS FOR ICELAND AND TANZANIA

Immunizations fall under two categories: 1) those that are required for SIT Graduate admission or entry into a country and 2) those that are recommended to protect *your* health and well-being by building up your immune defenses against specific prevalent diseases. In addition, certain basic immunizations are required by US law. Plan ahead at least 7 weeks, as laid out in the sample schedule at the end of these instructions, since some immunizations require more than one dose for effectiveness. The physician administering the inoculations should record all immunizations on the International Certificate of Vaccination or Prophylaxis (ICVP, also known as the WHO card). The WHO card should be kept with you at all times while in the host country.

***If for some reason you are unable to obtain a WHO card or your WHO card is lost it will be sufficient to carry a copy of your immunization record with you.***

### REQUIRED (for participation in program):

- **MMR (measles, mumps, rubella):** You will need to be immunized if you have not had 2 doses of live measles vaccine.
- **Tetanus, diphtheria, pertussis:** The primary child series is required. Boosters (Td or Tdap) are effective for 10 years. If you are uncertain when you

had your last injection, we recommend that you get another booster.

- **Yellow fever:** The yellow fever vaccination is not required for entry into Zanzibar-Tanzania directly from the US. However, proof of yellow fever vaccination *is required* for travelers coming from countries with a risk of yellow fever transmission. Also, if you are studying in another country for the SIT semester long practicum-please contact the appropriate country’s embassy or consulate to determine if yellow fever is an entry requirement for that country.

**RECOMMENDED (as a health precaution - consult your physician):**

- **Cholera:** CDC recommends this vaccine for adults who are traveling to risk areas.
- **Hepatitis A:** Hepatitis A vaccine, which provides long-term immunity, is recommended.
- **Hepatitis B:** A series of 3 immunization injections is recommended. See section on Hepatitis B.
- **Influenza:** Influenza vaccine should be considered for any individual wishing to decrease risk of influenza or non-specific respiratory illness especially those who are at high risk for complications from influenza including those with asthma, COPD, diabetes, chronic cardiovascular disease and immunocompromised conditions.
- **Typhoid:** This vaccine is urged as a viable protective measure. The vaccine is given either orally or by injection. Discuss the relative merits of each with your doctor.

**SAMPLE IMMUNIZATION SCHEDULE FOR ICELAND AND TANZANIA**

To assist your planning, we suggest the following schedule for required and recommended immunizations. For your own comfort and protection, do not leave shots to the last minute!

Before the start of program	Immunizations
7 weeks	Influenza
5 weeks	Typhoid (injection or oral)
4 weeks	Tetanus (Td, Tdap) booster
3 weeks	Hepatitis A vaccine; Cholera vaccine
1-3 weeks (before entering a malaria zone)	Start weekly malaria prophylaxis, (if using mefloquine)
1-2 days (before entering a malaria zone)	Start daily dose of malaria prophylaxis (if using doxycycline or Malarone)

With reasonable attention to health and hygiene rules, your stay in Iceland and Tanzania should be a healthy one. Aside from minor ailments due to adjustments to the new food, water and climate, the large majority of SIT students remain healthy throughout their semester. We do, however, recommend that you see your physician when you return to the US in order to test for any possible lingering infection contracted overseas.

**Take good care of yourself!**

