Health Guidelines and Requirements

Climate Change: The Politics of Food, Water, and Energy

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General Information
To protect your health in the Climate Control program, you need certain pre-departure immunizations followed by reasonable health precautions while in the country. The following health guidelines and requirements are based on years of experience and the current recommendations from the US Centers for Disease Control and Prevention. They are designed to inform you of health concerns that may be present in Vietnam, Morocco, and Bolivia especially as you venture to smaller cities off the usual tourist track, or spend time in small villages and rural areas for extended periods. Although no information sheet can address every conceivable contingency, the following health guidelines and requirements are an attempt to provide you with a standard, which if followed, should optimize good health during your stay abroad.

You may find that local customs and practice, as well as varying US physicians’ approaches, at times conflict with these guidelines. 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) or to your own physician.

Prevention of Insect-Borne Illness
Dengue: This is a viral disease and is transmitted by mosquitoes which bite primarily in the daytime. It occurs in urban as well as rural areas. Significant risk exists throughout the country in Vietnam as well as in Cochabamba, Bolivia. 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.

Leishmaniasis: Cutaneous and Visceral leishmaniasis are protozoa infections that causes skin ulcers and is transmitted by the bite of sand flies. It is common in the departments of La Paz and Cochabamba in Bolivia and the sub-Saharan zone in Morocco. Insect precautions are recommended.

SIT Study Abroad programs may venture off the usual tourist track. Pay careful attention to health and safety guidelines.
Chikungunya: is an arboviral infection that is transmitted by day-biting Aedes mosquitoes. It is prevalent in tropical Africa and Asia, parts of Central and South America, and the Caribbean. Symptoms are typically fever and joint pain. There is no licensed vaccine against it, but insect precautions and personal protective measures (especially during peak times (early morning and late afternoon) are the main prevention strategy.

Yellow fever: This is a viral disease, characterized by severe hepatitis with fever, which is transmitted by mosquitoes. The disease occurs only in parts of Africa and South America. Yellow fever exists in designated areas of Bolivia, including the subtropical regions of Cochabamba. It is not a concern for the cities of La Paz and Sucre and altitudes above 2,300 m. It may be prevented by avoiding mosquito bites (see “personal protective measures” in the Dengue fever section) and taking the vaccination shots, which are available at any Yellow fever vaccination center (consult your physician for the nearest center). A Yellow fever vaccination certificate is required for travelers entering Bolivia from any country.

Prevention of Food-and Water-Borne Illness

Diarrhea-producing infections: “Traveler’s diarrhea” is the most common form of diarrhea in Vietnam, Morocco and Bolivia. This 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. Fluid replacement for more severe diarrhea could require up to 3–4 liters initially over 2–6 hours, followed by 8–12 ounces for each subsequent loose stool. 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.

More protracted and disabling diarrheal illnesses may be due to giardiasis and amoebic dysentery (caused by parasites) and bacillary dysentery (caused by bacteria), including cholera and typhoid. These infections (as well as “traveler’s diarrhea”) are caused by contaminated food and water. Therefore, the best way to avoid such infections 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).
- Water that has been boiled for 5 minutes at sea level (longer at higher altitudes).
- Carbonated mineral water (to increase the likelihood that the bottle was opened by you and not filled at the tap).

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 boiling water is not possible and bottled water (from a trusted source) is not available. Chlorine in various forms is less reliable than iodine. If not outdated, these provide substantial protection when added to tap water.

DO EAT
- Cooked vegetables and fruits with thick covering (citrus, bananas, and melons); these should first be washed with soap and rinsed in boiled water before
cutting with your own clean dry knife; also, thoroughly wash your hands before touching food. Other vegetables and unpeeled fruits can be eaten if soaked for 30 minutes in iodine solution the color of weak tea.

- 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**

- Raw vegetables, including salads; rinsing them in water will not clean them unless extraordinary measures are taken, not usual in most restaurants.
- 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.

Residents of the host country may be quite sensitive to the implication that their food and water are not safe for consumption. Due to acquired immunity over generations of exposure, our hosts may not be at risk of becoming ill from consumption of local food and water. There may be times when refusing an offer of a drink with ice or avoiding a salad, will be considered rude. Even the most careful travelers may have to consider compromise on these occasions or in instances where alternative food and beverages are not available. You must decide for yourself, but excuses, thought out in advance, are often handy. Discuss these alternatives with your Trustees Fellow or Country Coordinator.

**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.

**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.

**A note on swimming:** Avoid swimming or wading in fresh water. Many parasites and bacteria live in water and can cause serious problems. Properly chlorinated pools and salt water are generally safe from infectious diseases.

**Other Illnesses**

**Altitude:** Cochabamba is over 8000 ft., La Paz is over 13,000 ft. above sea level and many points you visit in Bolivia are equally high. Even healthy, athletic individuals may become ill at altitudes over 10,000 ft. Common symptoms are unbearable headache and severe shortness of breath out of proportion to the mild fatigue most people experience while becoming acclimatized. If you are going to high altitudes, you should rest during the first 12-24 hours there in order to adjust to the lowered oxygen content in the air. You may also wish to consult your physician about obtaining some acetazolamide (Diamox). Note that this is contra-indicated for those allergic to sulfa drugs and that this possibility should be discussed with your physician. Also note that alcohol and sedatives may have greater effect at high altitudes.

It must be emphasized that any symptoms of severe altitude sickness should result in immediate descent, even if it is in the middle of the night. Allowing the traveler to rest overnight has proven to be a fatal error. Ascending slowly can minimize the risks of altitude sickness. Individuals with chronic heart and lung disorders, including asthma, should consult a physician before traveling to high altitudes. If you have a disorder and your physician has nonetheless given approval, do let us know about the problem so that we can advise the Program Director and our local doctors accordingly. Also bring full medical notes with you to help local doctors in case of need.
If you have a sickle cell condition you should also consult your physician before going to high altitudes.

**Rabies:** Rabies is a viral disease almost always caused by animal bites (especially dogs and bats). Risk occurs in Vietnam, Morocco and Bolivia, and, therefore, you should take measures to prevent it. Given the serious danger posed by rabies as a uniformly fatal disease, follow these important guidelines:

- Consider pre-exposure immunization (if available).
- 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; depending on the location of the bite, you may have little time.
- 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.

**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 is required prior to travel (unless already known to be positive) as this test can indicate prior exposure to tuberculosis. A repeat test is recommended after returning to the US even if the pre-departure test was negative.

**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. Condoms are generally available abroad but may not be of good quality. Students anticipating even the possibility of sexual activity are strongly urged to 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 Country Coordinators 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.

**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.

**Hand-foot-mouth disease (HFMD):** This very unpleasant and highly contagious viral disease usually begins with a fever, malaise, and sore throat, followed by painful blisters on the mucous membranes of the mouth and tongue, and also on the hands and feet. It usually resolves within a week but is very uncomfortable. It is highly contagious and occurs throughout the year, especially in the southern provinces of Vietnam including Ho Chi Minh City. Frequent hand washing is in order, especially after contact with children or with anyone who seems to have this type of illness.

**Avian influenza (Bird Flu):** The Avian influenza H5N1, a particularly virulent strain of influenza virus, is endemic in Vietnam and is excreted in the droppings of infected birds, including poultry. Sporadic human cases have occurred after direct contact with poultry. The last human case was reported in February 2014. The last case in birds was reported in March 2014. The risk to travelers is minimal, but it is important to avoid poultry farms and live animal markets. Well-cooked chicken is safe to eat. Current influenza vaccines are not protective. The anti-viral medicine oseltamivir (“Tamiflu”) is effective against this virus and you should
discuss the possibility of bringing a supply with you with your physician or medical provider.

Read more on Avian Flu Preparedness: http://www.sit.edu/SSA_Health_document/Avian_Flu_Preparedness.pdf

Immunizations for Climate Change
Immunizations fall under two categories: 1) those that are required for SIT Study Abroad admission or entry into the 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.

Immunization for yellow fever is required for entry into Bolivia. Plan well in advance for the yellow fever inoculation since it is not as widely available as others.

Plan ahead at least 10 weeks for immunizations-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 yellow WHO card should be kept with you at all times while in the host country.

REQUIRED
- **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 and enter it on your WHO card.

- **Yellow fever:** Certification of yellow fever vaccination (enter it on your WHO card) is required for all travelers arriving from ALL COUNTRIES, including the United States and Canada as part of Bolivia’s visa and entry process.

RECOMMENDED
- **Typhoid:** This vaccine is strongly urged as a viable protective measure. The vaccine is given either orally or by injection. Discuss the relative merits of each with your doctor.

  - **Rabies:** Follow carefully the special instructions in the section on rabies.

  - **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.

Sample Immunization Schedule for Climate Control
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!

<table>
<thead>
<tr>
<th>Before the start of program</th>
<th>Immunizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 weeks</td>
<td>Yellow fever (for visa/entry)</td>
</tr>
<tr>
<td>8 weeks</td>
<td>First rabies pre-exposure (Imovax, RabAvert)</td>
</tr>
<tr>
<td>7 weeks</td>
<td>Tetanus (Td, Tdap)</td>
</tr>
<tr>
<td></td>
<td>Influenza</td>
</tr>
<tr>
<td></td>
<td>Second rabies</td>
</tr>
<tr>
<td>5 weeks</td>
<td>Typhoid (injection or oral)</td>
</tr>
<tr>
<td></td>
<td>Third rabies</td>
</tr>
<tr>
<td>3 weeks</td>
<td>Hepatitis A vaccine</td>
</tr>
</tbody>
</table>

With reasonable attention to health and hygiene rules, your stay in Vietnam, Morocco and Bolivia should be a healthy one. Aside from minor ailments due to adjustments to the new food, water and climate, this is the experience of the large majority of SIT Study Abroad students. We do, however, recommend you see your physician on returning to the US in order to test for any possible lingering infection contracted overseas.

Take good care of yourself!