Bolivia: Multiculturalism, Globalization, and Social Change
GENERAL INFORMATION
To protect your health in Bolivia, 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 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 specific 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 ILLNESSES
Malaria
Since Malaria is not a problem above 8,200 feet, and most of the program itineraries are based in locations above this level, you need not take prophylaxis for most group parts of the program (including travel to La Paz, Santa Cruz city, Sucre and Lake Titicaca). However, you are at potential risk when at lower altitudes (below 8,200 feet). Also, if you plan on doing your ISP in a malaria area you must protect yourself. 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, mefloquine, or tafenoquine (Arakoda). G6PD testing is required prior to tafenoquine use. 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 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 Study Abroad suggests that if you have further questions, you should 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

**Dengue**
Dengue is a viral disease and is transmitted by mosquitoes which bite primarily in the daytime. It occurs in urban and rural areas throughout the country at elevations below 2500 m (8200 ft.). No risk exists in the city of La Paz. 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, are therefore essential. The disease causes considerable discomfort (fever, body aching), but is self-limited in adults.

**Chikungunya**
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. Low risk exists in Bolivia. 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.

**Zika**
Zika is a viral infection that is also transmitted by the bite of the Aedes mosquitoes. Symptoms include mild fever, rash, conjunctivitis (red eyes), joint or muscle pain and headache. The disease causes considerable discomfort, but is mild and self-limited, lasting for several days to a week.

There are no vaccines or medications available to prevent or treat Zika infections therefore students should be vigilant in using insect precautions and personal protection measures against day-biting mosquitoes (see insect precautions section above).

CDC recommends that pregnant women consider postponing travel to countries where the Zika virus is prevalent.

**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. Insect precautions are recommended.

**Yellow Fever**
This is a viral disease transmitted by mosquitoes that occurs only in parts of Africa and South America. Yellow fever is characterized by severe hepatitis with fever. It may be prevented by avoiding mosquito bites (personal protective measures) and by getting the vaccination shots that are available at any yellow fever vaccination center (consult your physician for the nearest center). A yellow fever vaccination certificate is required for entry into Bolivia and for travel to certain parts of the country including Santa Cruz (an excursion destination).

**PREVENTION OF FOOD- AND WATER-BORNE ILLNESSES**

**Diarrhea-Producing Infections**
“Traveler’s diarrhea” is the most common form of diarrhea in 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. 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).
- Hot beverages (coffee, tea).
- Water that 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.

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 your Academic Director(s).

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

**Leptospirosis**
This is a bacterial infection caused by the Leptospira bacteria. The disease is spread through direct contact with the urine, blood or tissue from infected animals or rodents or through water, soil, or food contaminated with their urine. It’s most common in warm climates. Travelers who come in contact with the disease may experience symptoms of high fever, headache, bleeding, muscle pain, chills, red eyes, and vomiting. Without treatment, leptospirosis can lead to kidney and liver damage and even death. This disease is treated with antibiotics (doxycycline, penicillin) to clear the infection.

**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,

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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.

**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.

**OTHER DISEASES**

**Altitude**
Cochabamba, the program base is over 8000 ft., La Paz is over 13,000 ft. above sea level and many points you visit 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. Ascending gradually and resting during the first 12–24 hours can minimize the risk of altitude sickness. You may also wish to consult your physician about obtaining some acetazolamide (Diamox). Note that this is contraindicated 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.

Any symptoms of severe altitude illness should result in **immediate** descent. Individuals with chronic heart and lung disorders, such as asthma, and any other preexisting medical condition including sickle cell or diabetes should consult a physician before traveling to high altitudes. If your physician has given approval for high altitude travel, do let us know about the condition so that we can advise the Academic Director(s) and our local doctors accordingly. Bring full medical notes with you to help local doctors in case of need.

**Rabies**
Rabies is a viral disease almost always caused by animal bites (especially dogs and bats). Risk occurs in 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 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.
**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.

**HIV/AIDS and Blood Supplies**
HIV/AIDS is a concern worldwide. The HIV virus is transmitted by way of bodily fluids from an infected person. HIV is spread mainly by having anal or vaginal sex or sharing drug injection equipment with a person who has HIV. AIDS is an acquired immune deficiency that can result in life-threatening infections and is the most advanced stage of the HIV infection. 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 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 Academic Directors 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.

**IMMUNIZATIONS FOR BOLIVIA**
Immunizations fall under two categories: 1) those that are required for SIT Study Abroad 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.

Immunization for yellow fever is required for entry and travel throughout the country. Plan well in advance for the yellow fever inoculation since it is not as widely available as others. Plan ahead at least 12 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.
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 another booster.
- **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 (as a health precaution - consult your physician):
- **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.
- **Typhoid**: This vaccine is strongly urged as a viable protective measure. The vaccine is given either orally or by injection. Discuss the relative merit of each with your doctor.
- **Rabies**: Follow carefully the special instructions in the section on rabies.
- **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 a high risk for complications from influenza including those with asthma, COPD, diabetes, chronic cardiovascular disease and immunocompromised conditions.

HIV/AIDS INFORMATION
Bolivia requires HIV/AIDS tests for foreign visitors staying longer than 60 days in that country. Please bring the result of your HIV test with you.

SAMPLE IMMUNIZATION SCHEDULE FOR BOLIVIA
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!

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<thead>
<tr>
<th>Before the start of program</th>
<th>Immunizations</th>
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<tbody>
<tr>
<td>12 weeks</td>
<td>HIV/AIDS test (for visa)</td>
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<tr>
<td>8 weeks</td>
<td>Yellow fever</td>
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<td>First rabies pre-exposure (Imovax, RabAvert)</td>
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<tr>
<td>7 weeks</td>
<td>Tetanus (Td, Tdap) booster; Influenza</td>
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<td></td>
<td>Second rabies</td>
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<td>5 weeks</td>
<td>Typhoid (injection or oral)</td>
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<td></td>
<td>Third rabies</td>
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<td>3 weeks</td>
<td>Hepatitis A vaccine</td>
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With reasonable attention to health and hygiene rules, your stay in 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!