

# Travax® Traveler Health Report

JOAN and BOB ASARNOW  
Travel to Tanzania

## Itinerary

Round trip: United States → Tanzania → United States

## Health Concerns Summary

The following may pose a risk or require preventive measures based on this itinerary. See the report sections below for details.

- **Vaccine-Preventable Diseases:** cholera, hepatitis A, hepatitis B, influenza, rabies, typhoid fever, yellow fever
- **Malaria**
- **Other Diseases:** African trypanosomiasis, chikungunya, dengue, schistosomiasis, traveler's diarrhea, tuberculosis

## Yellow Fever

### Requirement Information (for entry)

#### Is yellow fever vaccine an official requirement for this itinerary?

**NO.** An official certificate showing vaccination within 10 years is not required for entry by any country on the entered itinerary sequence, but view full details and see "YF Requirement Table" if there are additional transited countries.

- **Visa application:** Proof of YF vaccination may be required for certain visa applicants. Travelers should contact the appropriate embassy or consulate with questions and, if it is required for their visa, carry the YF certificate with their passport on the day of travel.

#### Yellow Fever Requirement Table for this Itinerary

The following values result in the "NO" requirement result shown above (based on a round trip with United States as the home country):

Yellow Fever Requirement Table				
Country	Transm. Risk	Required if Coming From	Applies to Ages	See Note
UNITED STATES	No	None	None	
TANZANIA	No	Country with Transm. Risk	1 yr. and older	2

**Note 2:** Direct air transit stops in a "Required if Coming From" country may impact the yellow fever requirement. Please refer to the Individual Country Requirements information presented below to review this country's requirement and determine whether qualifying transit stops should be added to the itinerary in Report Builder.

#### Individual Country Requirements

- **Tanzania**
  - A vaccination certificate is required for travelers over 1 year of age coming from countries with risk of YF transmission.  
*Note:* This applies to airport layovers > 12 hours in such countries.

### Recommendation Information (for health protection)

## Is yellow fever vaccine a recommended protective measure for this itinerary?

**NO.** Vaccination is not recommended except for highly risk-averse and long-stay travelers. See additional information below.

### Individual Country Recommendations

- **Tanzania**

- Vaccination is not recommended except for highly risk-averse travelers and long-stay travelers. No human or non-human primate cases of YF have ever been reported. Data indicate that the only historical evidence for YF virus transmission is from serosurveys conducted over 40 years ago that demonstrated very low rates of possible exposure.

## Other Immunization Recommendations

- **Hepatitis A**

- **Tanzania**

- *Recommended for:* all travelers.

- **Typhoid fever**

- **Tanzania**

- *Recommended for:* all travelers.

- **Hepatitis B**

- **Tanzania**

- *Recommended for:* prolonged stays; frequent short stays in this or other high risk countries; adventure travelers; the possibility of acupuncture, dental work, or tattooing; all health care workers; the possibility of a new sexual partner during the stay; injection drug users; and travelers with high potential to seek medical care in local facilities. Consider for short stays in travelers desiring maximum pre-travel preparation. Increased awareness is recommended regarding safe sex and body fluid/blood precautions.

- **Rabies**

- **Tanzania**

- Risk exists in most of the country and is highest in the northeastern regions of Arusha, Kilimanjaro, Manyara, and Tanga. Risk is minimal in the Lindi and Mtwara regions and on Zanzibar Island. *Recommended for:* Prolonged stays: all travelers with a priority for young children and rural travel. Shorter stays: occupational exposure; locations more than 24 hours' travel from a reliable source of human rabies immune globulin and rabies vaccine for postexposure treatment; adventure travelers, hikers, cave explorers, and backpackers; and all travelers involved in any activity that might bring them into direct contact with bats. Consider for risk-averse travelers desiring maximum pre-travel preparation. Dog and bat bites or scratches should be taken seriously and postexposure prophylaxis sought even in those already immunized.

- **Cholera**

- **Tanzania**

- Risk exists throughout the country. *Recommended for:* aid and refugee workers. Cholera vaccine (Dukoral) is available in Canada and many European countries, but not in the U.S. Strict food and beverage precautions and hygiene measures are advised for travel to risk areas.

- **Influenza**

- **Tanzania**

- Risk exists throughout the year in the tropics. *Recommended for:* all travelers due to demonstrated influenza risk in this group. Immunity may have declined in those vaccinated > 6 months earlier; consider an additional dose using the most recently available vaccine formulation. Consider oseltamivir as standby therapy, especially for those who are at high risk for complications from influenza.

- **Polio**

- **Tanzania**

- Adult polio boosters are not recommended for travel to this country.

- **Routine vaccinations (adults only)**

- **Tetanus, diphtheria, pertussis**

- **Tanzania**

- Due to increasingly frequent pertussis outbreaks worldwide, all travelers should receive Tdap vaccine every 10 years, assuming they previously received an adequate primary series. Those who received Td or TT for their

most recent booster should receive an immediate dose of Tdap, regardless of interval since the last tetanus dose.

- **Measles, mumps, rubella**
  - **Tanzania**
    - Indicated for those born in 1957 or later (1970 or later in Canada and U.K.; 1966 or later in Australia) without evidence of immunity or of 2 adequate doses of live vaccine at any time during their lives. Also indicated for those born before 1970 (in Canada) without evidence of immunity or vaccination with measles-containing vaccine at or after age 1 year.
- **Varicella**
  - **Tanzania**
    - Indicated for all persons born outside the U.S. or born in the U.S. after 1979, except not indicated for persons with an adequate vaccination history (2 lifetime doses), reliable evidence of previous infection, or laboratory confirmation of immunity.
- **Pneumococcal**
  - **Tanzania**
    - Recommended for adults aged ≥ 65 years and all adults with chronic disease or immunocompromising conditions.

## Malaria

### Malaria Information

- **Tanzania**
  - **General malaria information:** predominantly *P. falciparum*. Transmission occurs throughout the year and is highest during the rainy season from November through May. Highland areas in the far west of the country are subject to infrequent epidemics.
  - **Location-specific recommendations:**
    - *Chemoprophylaxis is recommended for all travelers:* altitudes below 1,800 m (5,900 ft) (see map); all cities and towns within these areas.
    - *Chemoprophylaxis is recommended for certain travelers (see Issues to Consider inset):* altitudes above 1,800 m in the far west of the country (see map); all cities and towns within these areas.
    - *No preventive measures are necessary (no evidence of transmission exists):* altitudes above 1,800 m in all other areas not mentioned above (see map).

### Malaria Prophylaxis

Drug choice depends on personal factors discussed between the traveler and medical provider. No preventive measure is 100% effective. Immediate medical attention is necessary for fever or influenza-like illness within 3 months after travel in a malaria risk area. Include mention of travel history.

- **Tanzania**
  - **Preventive measures:** Evening and nighttime insect precautions are essential in areas with any level of transmission. Atovaquone/proguanil (Malarone or generic), doxycycline, and mefloquine are protective in this country.

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#### Issues for Medical Providers to Consider

##### **Factors favoring chemoprophylaxis**

- ◆ Adventure travel
- ◆ Risk-averse and vulnerable travelers
- ◆ Areas subject to infrequent epidemics
- ◆ Immigrants visiting friends and relatives
- ◆ Flexible itineraries
- ◆ Travel longer than 1 month
- ◆ Unreliable medical expertise and/or treatment drugs at destination

##### **Factors against chemoprophylaxis**

- ◆ Air-conditioned hotels only
- ◆ Urban areas only
- ◆ Non-transmission season
- ◆ Minimal nighttime exposure
- ◆ Travel shorter than 3 days

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See the *Technical Explanation of Malaria Mapping* document for more information.

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# Country Profile(s)

## TANZANIA

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### General Information

Tanzania is a developing nation in the lowest 25% of the world's economies. Located in eastern Africa, its climate varies from tropical along the coast to temperate in the highlands.

### Traveler's Diarrhea

- High risk exists throughout the country, including in deluxe accommodations in major cities. Food and beverage precautions are essential to reduce the likelihood of illness.
- Travelers should carry loperamide and/or a quinolone antibiotic for presumptive self-treatment of diarrhea if it occurs.

### Other Concerns

- **Sexually Transmitted Infections:** HIV/AIDS is estimated to be present in 5% of the adult population putting this country in the top tier of all countries. In addition, 31% of sex workers in the capital city are estimated to be HIV positive. Travelers should clearly understand STI concepts and risks for HIV transmission.
- **Tuberculosis:** This disease is common in all developing countries. However, this country has an incidence of over 100 cases per 100,000 population, the highest risk category. Travelers planning to stay more than 1 month should have pre-departure PPD skin test status documented. Travelers should avoid crowded public places and public transportation whenever possible. Domestic help should be screened for TB.
- **Dengue:** Risk exists in urban and rural areas throughout the country at elevations below 2,500 m (8,200 ft), including Dar es Salaam Region and Zanzibar Island. Daytime insect precautions are recommended.
- **Chikungunya:** Risk exists throughout the country, especially in Kilimanjaro Region. Daytime insect precautions are recommended.
- **African Trypanosomiasis:** Risk exists in western regions of Kigoma (including Moyowosi Game Reserve), Tabora (including Ugalla River Forest Reserve), Rukwa (including Luafi Game Reserve and Katavi National Park), and northern national parks (Serengeti, Ngorongoro, Tarangire). Conventional insect repellents (DEET and permethrin) are ineffective. Wearing of light-colored (not blue), heavyweight clothing is recommended.
- **Altitude Illness:** Chemoprophylaxis with acetazolamide should be considered for travelers anticipating rapid ascent to sleeping altitudes above 2,800 m (9,200 ft). Climbers summiting Mount Kilimanjaro reach an elevation of 5,895 m (19,300 ft). Itineraries often summit on the fifth day, which many trekkers do not tolerate.
- **Schistosomiasis:** Significant risk exists throughout the country including Zanzibar Island. Risk is highest in the areas surrounding Victoria, Malawi, and Tanganyika lakes and the northeastern regions bordering the Indian Ocean. Travelers should avoid freshwater exposure.
- **Marine Hazards:** Jellyfish, coral, and sea urchins present risk.

### Medical Care

- Medical care is substandard throughout the country. Adequate private medical care for minor-care situations is available in Dar es Salaam. Adequate evacuation coverage for all travelers is a high priority. In the event of a serious medical condition, medical evacuation to Nairobi or Johannesburg/Pretoria is likely to be necessary. Shortages of routine medications and supplies may be encountered.
- In an emergency, dial 112 for police.
- There is no clear information as to payment practices or whether credit cards are accepted for medical care.

### Travel Advisory

*The material below has been compiled or quoted verbatim from the consular websites of the United States, United Kingdom, Canada, and Australia and, in some cases, the U.S. Overseas Security Advisory Council and internationally recognized media sources. Standard safety precautions that apply to all international travel are not included in this advisory. Please refer to the "Safety and Security" handout for standard precautions.*

## **Terrorism Risk**

- There is a potential for terrorist activity in East Africa, including Tanzania and the island of Zanzibar.

## **Consider Avoiding**

- Bandits operate in the provinces of Kigoma and Kagera near the borders with Rwanda, Burundi, and the Democratic Republic of the Congo. Incidents of armed banditry have been reported in national parks in Tanzania, including around Mount Kilimanjaro, the Serengeti, and Arusha National Parks.

## **Crime**

- Violent crime occurs throughout the country, especially in Dar es Salaam and Zanzibar.
- Armed robbery, although rare, can also occur in parks and nature reserves; organized tours and independent travelers have been targeted.
- Carjacking has occurred in rural and urban areas.
- Sexual assaults involving tourists are a concern.
- Muggings, pickpocketing, and theft are common in crowded areas, on public transportation, and on public beaches.
- Travelers should be careful at customs at airports, as officials have been known to solicit bribes. Police officers may approach travelers requesting money for alleged offenses.

## **Piracy**

- Pirate attacks and armed robbery against ships occur in coastal waters.

## **Miscellaneous Safety**

- Wild animals can be dangerous. Travelers visiting parks or nature reserves should follow the advice and warnings of local tour guides.
- Travelers climbing Mount Kilimanjaro should carefully consider the inherent risks involved. Each year people are seriously injured or killed on the mountain and emergency assistance is severely limited.
- Swimming in lakes and rivers is unsafe because of the possibility of being attacked by wildlife and the risk of catching water-borne diseases.

## **Road Conditions and Hazards**

- Road conditions are poor and road signs are often missing.
- Excessive speeds, driving habits, poor lighting, lack of vehicle maintenance, roaming wildlife and livestock, cyclists, and pedestrians pose risks.
- For travel outside main cities, it is recommended to use a four-wheel drive vehicle.

## **Driving Laws**

- Traffic drives on the left.
- Tanzanian law requires all motor vehicle operators to be in possession of a valid driver's license or an International Driving Permit (IDP). Travelers intending to remain in Tanzania for more than six months are required to obtain a Tanzanian driver's license. A license is also required to operate a motorcycle.

## **Public Transportation**

- Bus travel is not recommended.
- Rail service is limited, uncomfortable, and unreliable.
- There are regular reliable ferries from Dar es Salaam and Zanzibar.

## **Natural Disasters and Climate**

- Coastal areas and islands are subject to monsoons between June and October.
- In most areas, the long rainy season occurs from March to May and short rains last from November to December.
- Tanzania lies on an active fault line stretching from the north of the country to the south and tremors occur from time to time.

### **Exit Fees**

- In Zanzibar an additional airport tax, payable in cash, is required upon departure.

### **Other Laws**

- Zanzibar is almost exclusively Muslim, and has an Islamic court system. Nationally, different sets of laws are applied to people according to their ethnicity and religion; most Tanzanians observe customary law.
- Carry identification (e.g., a copy of your passport) at all times.
- Spitting in public is illegal.
- Alcohol is not sold in some parts of Zanzibar and visitors should avoid consuming it in those areas.
- Homosexual activity is illegal and is subject to significant penalty.
- Possession of pornographic material is illegal.
- Volunteer activity is strictly prohibited on a tourist visa, and requires a work permit. Overstaying a visa or working without an appropriate permit may result in arrest, detention, and a fine before deportation.

### **Availability of Basic Infrastructure and Tourist Facilities**

- Tourist facilities are adequate in major cities but limited in remote areas, with the exception of principal game lodges and beach resorts.
- Due to power shortages, power cuts may occur on a daily basis.

### **Dual Citizenship**

- Tanzania does not recognize dual nationality.

### **Currency**

- The currency is the Tanzanian shilling (TZS).
- Outside of Dar es Salaam and at smaller establishments, cash in either Tanzanian shilling or U.S. dollars is the preferred method of payment, particularly for hotel bills, domestic airline tickets, and entry to national parks.
- Credit cards may be used at some major hotels but are not widely accepted in Tanzania.
- In the larger urban areas, ATMs are usually available at major banks.

### **Import and Export Information**

- The export of hunting "trophies" is strictly regulated.

### **Visa/HIV Testing**

- Visa applicants may need to meet specific requirements. Review the application and contact the appropriate embassy or consulate with questions. The U.S. Department of State is unaware of any HIV/AIDS entry restrictions for visitors to or foreign residents of Tanzania.

### **Consular Information**

#### Selected Embassies or Consulates in Tanzania

- U.S. Embassy: Tel.: [+255] 22-229-4000, [tanzania.usembassy.gov](http://tanzania.usembassy.gov)
- Canadian Embassy: Tel.: [+255] 22-216-3300, [www.tanzania.gc.ca](http://www.tanzania.gc.ca)

- U.K. Embassy: Tel.: [+255] 22-229-0000, ukintanzania.fco.gov.uk/en
- Australian Embassy: Australia does not have an Embassy or Consulate in Tanzania. By agreement between the Canadian and Australian governments, the Canadian High Commission in Dar es Salaam provides consular assistance to Australians in Tanzania.

#### Tanzania's Embassies or Consulates in Selected Countries

- In the U.S.: [www.tanzaniaembassy-us.org](http://www.tanzaniaembassy-us.org)
- In Canada: [www.tzrepottawa.ca](http://www.tzrepottawa.ca)
- In the U.K.: [www.tanzania-online.gov.uk](http://www.tanzania-online.gov.uk)

## Vaccine Information

### Traveler Information

#### VACCINE HANDOUT

The boxes checked below indicate travel and routine immunizations that have been recommended by and discussed with your health care provider for your specific itinerary and risk activities. As noted, some vaccines require more than 1 dose to complete the immunization series, so you may need to return for the remaining doses before your trip so that you are properly protected.

Note: All commercially available vaccines (including live virus vaccines) can be given simultaneously or in combination (when available). If not given on the same day, live virus vaccines should be given at least 28 days apart. However, smallpox (not commercially available) and varicella vaccines may NOT be given simultaneously and MUST be given at least 28 days apart.

Recommended and given	Recommended but declined	Given at patient request	Travel Immunizations for Tanzania
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Hepatitis A</b> virus causes liver infection with fever and jaundice. Although rarely life-threatening, this illness can be severe and recovery can be prolonged. Infection is passed by consuming contaminated food or water. The initial dose of vaccine protects for a year or more and a second dose (booster) given at least 6 months after the first dose will confer life-long protection. Mild side effects include injection site soreness and headache. A combined hepatitis A/B vaccine is also available.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Hepatitis A/B combination vaccine</b> is given in 3 doses (at 0, 1, and 6 months). An accelerated schedule used by many travel medicine practitioners is 3 doses (given on days 0, 7, and 21), which then necessitates a fourth dose at 1 year. Pain, redness, and swelling may occur at the injection site.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Typhoid fever</b> is a serious bacterial infection that spreads through the bloodstream, resulting in high fever, belly pain, and either diarrhea or constipation. Infection is acquired by consuming contaminated food or water. One dose of injectable typhoid vaccine protects for 2-3 years. Four doses of the oral vaccine (given on days 0, 2, 4, and 6) provide 5-6 years of protection. Nausea and cramps may occur with the oral vaccine. Side effects of the injectable vaccine can include soreness, redness, and swelling at the injection site.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Hepatitis B</b> virus causes severe liver infection with fever and jaundice; if the infection becomes chronic it can lead to liver failure or cancer. Hepatitis B virus can be transmitted by nonsterile needles, contaminated blood products, and sexual contact. Three doses are usually given at 0, 1, and 6 months. Two accelerated schedules available for travelers consist of 3 doses given either at 0, 1, and 2 months or on days 0, 7, and 21. While protection is obtained after 3 doses, if an accelerated schedule is used, a fourth dose is required 12 months later for lifelong immunity. The most common side effects are injection site soreness and fever. A combined hepatitis A/hepatitis B vaccine is available.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Yellow fever</b> is an often life-threatening viral illness spread by mosquitoes in the Amazon basin of South America and sub-Saharan Africa. Yellow fever vaccine may be recommended

			or required for travel to or from these countries. One dose is given and becomes effective in about 10 days and protects for 10 years or more. Flu-like symptoms might occur 5-14 days after vaccination (in about 2-5% of persons), and rarely, encephalitis can occur. <i>This vaccine cannot be used by persons allergic to eggs.</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Rabies</b> is a fatal disease transmitted by animals (most commonly dogs and bats); rabies occurs worldwide (except New Zealand and most South Pacific islands) but is more common in developing countries. Preexposure vaccination consists of 3 doses given on days 0, 7, and 21-28. (Booster doses may be needed in some cases.) Mild side effects may include injection site pain, redness, swelling, and itching, headache, nausea, abdominal pain, muscle ache, mild fever, and dizziness. A few persons may experience hives up to 21 days later. If you are exposed or if there is a potential that you have been exposed to rabies, you must seek medical attention immediately, even if you have had the preexposure series. Additional injections are needed after an exposure to rabies. Neurologic reactions can be a concern with some rabies products made abroad.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Cholera</b> is spread by contaminated food or water and causes diarrhea that can range from mild to very severe. Outbreaks occur mostly after natural and man-made disasters. Infection is rare in typical travelers, and vaccination is no longer required for entry into any country. Cholera vaccine is not available in the U.S., but oral cholera vaccines are available in Canada and elsewhere and may often be obtained en route. Depending on your age and the type of vaccine used, 1 to 3 doses are given (doses are given at least 1 week apart), followed by a booster dose. Side effects may include mild gastrointestinal symptoms. Very rarely, headache, dizziness, or shortness of breath has been reported.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Influenza</b> is a viral infection that causes fever, headache, muscle aches, and lung infection and occurs year round in the tropics. The virus usually enters one's body through mucus membranes in the mouth, nose, or eyes when an infected person coughs or sneezes. One dose of influenza vaccine is given and lasts only for the current flu season. Vaccine is available as an injection (inactivated) or a nasal spray (live weakened virus). After the injection, flu-like symptoms might occur for 1-2 days; after the nasal spray immunization, mild symptoms such as runny nose or nasal congestion, cough, headache, sore throat, chills, and a feeling of tiredness or weakness might occur. <i>Persons with egg allergy should not use this vaccine.</i>
			<b>Routine Immunizations</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Tetanus, Diphtheria, Pertussis:</b> Tetanus (lockjaw) is caused by contamination of cuts or wounds. Diphtheria is a potentially fatal infection that is common in developing countries. Pertussis (whooping cough) is a highly contagious respiratory disease caused by bacteria. All travelers should have completed the primary series (DTaP, DT, or Td, as appropriate) and receive Td boosters every 10 years thereafter (1 booster should be Tdap, if not given previously). More frequent Td booster doses may be suggested in some cases. All adolescents and adults should have had 1 dose of Tdap vaccine. Side effects can include soreness, redness, and swelling at the injection site.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Measles, Mumps, and Rubella:</b> Measles is a potentially serious illness with fever, cough, and rash. Mumps may cause brain infection or infertility in males. Rubella (German measles) usually causes mild fever and rash but can be devastating to a developing fetus. These diseases are common in developing countries and can be prevented with live measles/mumps/rubella (MMR) vaccine. Persons born before 1957 in the US or 1970 in Canada may be immune already. Non-immune persons need 2 doses given at least 28 days apart. (Children age 1-4 years receive 1 dose, with a second usually given at age 4-6 years.) Fever and/or rash may occur 7-12 days after vaccination.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Varicella</b> (chickenpox) is a viral illness spread by respiratory droplets; it causes an itchy blister-like rash. Bacterial infections commonly follow the illness. Non-immune adults are at increased risk of severe illness. Persons born before 1980 in the US may already be immune. Non-immune persons age 13 years and older are given 2 doses, given 4-8 weeks apart. Unvaccinated children ages 12 months to 4-6 years are given 1 dose, with a second dose given at age 4-6 years. Vaccination provides prolonged protection. Uncommonly, a blister-like rash might occur after vaccination.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Pneumococcal disease</b> is caused by bacteria transmitted from person to person through droplets and, presumably, by direct contact. It can lead to serious infections of the lungs (pneumonia), the blood (bacteremia) and the covering of the brain (meningitis). Most adults



			who need the vaccine will get 1 dose; some adults and children older than 10 years of age may need another dose after 5 years. Young children who need the vaccine usually receive 3 doses, each dose separated by 2 months, plus a booster dose 12-15 months later. Mild side effects commonly occur, such as redness, swelling, or pain where the shot is given.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Herpes zoster</b> (shingles) is an outbreak of rash / blisters caused by a reactivation of the chickenpox virus. Anyone who has had chickenpox is at risk for shingles. The first symptom is often burning/tingling pain or sometimes numbness in or under the skin; fever, chills, headache, or upset stomach may occur; within days a rash of small fluid-filled blisters appears on reddened skin. The pain associated with shingles can be intense. A vaccine is available for the prevention of shingles in persons 50 years of age and older who have had chickenpox. One dose is given as an injection under the skin. The most common side effects reported were redness, pain, swelling, itching, warmth, and bruising at the injection site and headache.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Human papillomavirus</b> (HPV) are viruses transmitted through sexual contact; these viruses can cause cervical cancer, abnormal cells in the lining of the cervix, and genital warts. Two vaccines are available. One (HPV2) is licensed for females aged 11-26 and one (HPV4) is licensed for males and females aged 10-25. The vaccine only protects when given prior to infection and does not protect against all types of HPV. Three injections are given over a period of 6 months. Side effects can include slight fever, pain, redness, or tenderness at the injection site, and fainting.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Hib disease</b> ( <i>Haemophilus influenzae</i> type b) is a serious bacterial illness that usually strikes children less than 5 years of age; it can cause ear infections, pneumonia, severe swelling in the throat, infection of the brain and spinal cord coverings (that can lead to brain damage and deafness), and death. A child can start Hib vaccine as early as 6 weeks of age, with subsequent doses as little as 4 weeks apart, so that 3 doses can be administered before travel. Unvaccinated persons older than 5 years of age receive a single dose. Side effects are usually mild, including soreness at the injection site, fever, irritability, runny nose, itchiness, and a tired feeling.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Rotavirus</b> is a serious viral illness that usually strikes infants and young children. It can cause severe diarrhea, vomiting, fever, and dehydration, and causes a half million deaths in children each year, mostly in developing countries. Infection can occur as early as 2-3 months of age and is most severe in children ages 6-24 months. An oral rotavirus vaccine is available as a 3-dose series, starting as young as age 6 weeks, with subsequent doses a minimum of 4 weeks apart. The vaccine is not for use in children younger than 6 weeks or older than 32 weeks of age. Side effects can include diarrhea, vomiting, runny nose, sore throat, ear infection, or coughing.

## Basic Preventive Measures

Many travel-related health and safety problems can be significantly reduced through appropriate behavior by the traveler. Risk can be minimized by adherence to the following measures.

### INSECT PRECAUTIONS

- Wear clothing that exposes as little skin as is practicable.
- Apply a repellent containing the insecticide DEET (concentration 30-35%) or picaridin (concentration 20% or greater for tropical travelers).
  - Picaridin products in the U.S. with 20% concentration include Natrapel (Tendercorp) and Picaridin Insect Repellent (Sawyer). Picaridin is also known as Icaridin in some countries.
  - Picaridin has a pleasant smell, an advantage over DEET.
- The repellent should be applied to all exposed nonsensitive areas of the body. Frequent application ensures continuous protection.
- The time of day and type of insects to be avoided determine when the repellent should be applied.
  - Mosquitoes that transmit malaria (*Anopheles* mosquitoes) are generally night biters. In risk areas, be especially vigilant in applying repellent from dusk to dawn.
  - Mosquitoes that transmit dengue, chikungunya, and yellow fever (*Aedes* mosquitoes) are generally day biters. In risk areas, be especially vigilant in applying repellent during daytime hours, especially during peak biting times during the early morning hours and again in late afternoon.

- Mosquitoes that transmit West Nile virus and Japanese encephalitis (*Culex* mosquitoes) are most active at dusk and again at dawn. In risk areas, be especially vigilant in applying repellent from dusk to dawn.
- Consider treating outer clothing, tents, and sleeping bag liners with permethrin (or other pyrethroid) when traveling in an area of very high risk for malaria or other mosquito-borne or tick-borne diseases.
- If not sleeping in a sealed, air-conditioned room, sleep under a permethrin-impregnated bed net when at high risk of malaria. Regularly check the net for rips and tears, and keep it tucked in around the bed at all times. Ensure that all open windows have insect screens.
- 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.
- In areas where tick-borne disease is a risk, perform a full body check at least once a day.

#### SAFE FOOD and BEVERAGES

- Always wash hands with soap before eating and after using the toilet.
- Avoid purchasing food from market stalls and street vendors.
- Avoid buffets without food covers or fly controls.
- Avoid high risk food such as shellfish, raw or undercooked foods, unpasteurized dairy products, mayonnaise, unpeeled fruits, and salads.
- Avoid tap water and drinks/ice made from tap water, unless advised of their safety by a reliable source.
- Use sealed bottled water or treated water for drinking and brushing teeth. (See *Treating Water*.)

#### BLOOD-BORNE and SEXUALLY TRANSMITTED DISEASES (STDs)

- STDs, hepatitis B, and HIV are generally more prevalent in developing countries. Unprotected casual sex whether with the local population or with fellow travelers is always high risk.
- Inhibitions are diminished when traveling away from the social constraints of home. In addition, excess alcohol and other recreational drugs can influence behavior and encourage unintentional risk exposure.
- HIV and hepatitis B may be transmitted through blood, blood products, and contaminated surgical or dental instruments. These may be required following accidents or trauma. Consider carrying a needle and suture kit for high risk areas. If possible, defer medical treatment and travel to a facility where safety can be assured. Tattooing and body piercing carry similar risks.

#### SAFETY and CRIME AVOIDANCE

- Make sure at least one other person knows your whereabouts and expected schedule at all times.
- Use extra caution in tourist sites, market places, elevators, crowded subways, train stations and festivals, and avoid marginal areas of cities.
- Use only "registered" taxis, preferably radio taxis.
- Avoid visible signs of wealth in dress or jewelry.
- Be constantly attentive to surroundings and be wary of any stranger who engages you in any form of conversation or touches you in any way no matter how accidental the contact may appear to be.
- Carry only a photocopy of your passport face page and legal entry stamp; leave the actual passport in a hotel safe or at your residence.
- Wear your hand bag across your chest to prevent it from being snatched.
- Familiarize yourself with common local scams and distraction techniques.
- If you are confronted, give up your valuables. Money and passports can be replaced; you cannot.
- U.S. citizens can register foreign trip and residence information with the Department of State at [travelregistration.state.gov](http://travelregistration.state.gov), which facilitates communication and assistance in case of an emergency.

#### **Safety in the Hotel**

- Keep your hotel door locked at all times.
- Look for fire safety instructions in your hotel room. Familiarize yourself with escape routes upon arrival.
- Keep valuables in the room safe or the hotel safe.

#### **Safety When You Drive**

- Try to drive with windows closed.
- Keep car doors locked at all times.
- Wear seat belts at all times.
- Avoid driving at night or alone, and never drive outside urban areas after dark.
- Don't drink and drive.
- Never drive a motorcycle or scooter abroad.
- If available, long-stay and business travelers should arrange a locally purchased mobile phone to be in the vehicle whenever traveling.

#### SWIMMING and WATER EXPOSURE

- Currents, tides, and underwater hazards put swimmers at risk of drowning. Heed posted warnings at organized beaches, and do not bathe at unmarked, unpatrolled beaches.
- Avoid any exposure, even wading, in any part of any body of water known to be infected with schistosomiasis (bilharzia).
- Do not swim in water where there is sewage contamination or algae present.
- Do not walk on any beach after dark no matter how apparently busy, well-lit, or patrolled.

#### RABIES

- Never presume an animal is free of rabies.
- Don't stroke or handle pets or unknown animals. Children need to be closely supervised.
- If bitten, scratched, or licked on broken skin, cleanse the wound immediately with soapy water and seek postexposure treatment for rabies.

#### SKIN/WOUND CARE

- Broken skin may become infected and lead to serious problems. Any bite, cut, or broken skin should be cleaned with safe water. Apply an antiseptic as a solution or spray. Avoid creams since they can trap dirt.
- Increasing pain, redness, or discharge from a cut suggests a spreading infection and may require antibiotic treatment. Seek medical help.

#### TUBERCULOSIS

- Tuberculosis is prevalent in most developing countries and also presents risk in certain developed countries. Avoid crowded public transportation or crowded public places which are poorly ventilated.
- Distance yourself immediately from anyone with a chronic or heavy cough.
- Screen domestic help for tuberculosis.
- Long-stay residents should have a TB skin test pre-departure and once per year thereafter.

#### PRE-TRAVEL CHECKLIST

- Before departure, if you are using medication or have a medical condition, ensure adequate supplies of medication for the full journey and that they are securely packaged in their original containers and carried in more than one place. You should have a letter from your physician, stating your condition and the medications and/or medical supplies you are carrying.
- Always arrange adequate medical and evacuation insurance when traveling. Ensure all pre-existing medical issues are declared to the insurer so that non-covered conditions are ascertained in advance. Have the contact details recorded and accessible at all times during travel.
- Pre-departure medical and dental exams are advised.
- Pack a spare pair of eyeglasses or contact lenses, and adequate cleansing solution if applicable.
- If you have concerns about jet lag, altitude illness, or motion sickness ask your travel health provider about medications that may be suitable for you.
- Pack sunglasses, wide-brimmed hats, sunscreen lotions, and lip protection to avoid sun exposure problems during travel.