# Travax<sup>®</sup> Traveler Health Report

#### MEDICOS NICARAGUA 2015

## Itinerary

**Round trip:** United States  $\rightarrow$  Nicaragua  $\rightarrow$  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: hepatitis A, hepatitis B, influenza, rabies, typhoid fever
- Malaria
- Other Diseases: Chagas' disease (American trypanosomiasis), chikungunya, dengue, leishmaniasis, leptospirosis, 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	
NICARAGUA	No	None	None	

#### Recommendation Information (for health protection)

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

**NO**. Vaccination is not necessary as a protective measure for any country on this itinerary.

## Other Immunization Recommendations

- Hepatitis A
  - Nicaragua

- Recommended for: all travelers.
- Typhoid fever
  - Nicaragua
    - Recommended for: all travelers.
- Hepatitis B
  - o Nicaragua
    - *Recommended for:* all health care workers; the possibility of a new sexual partner during the stay; and injection drug users. Increased awareness is recommended regarding safe sex and body fluid/blood precautions.
- Rabies
  - Nicaragua
    - Risk exists in most of the country. Risk from bat exposure exists throughout the country. Recommended for: Prolonged stays: all young children and all travelers to rural areas where risk exists. Shorter stays: occupational exposure; adventure travelers, hikers, cave explorers, and backpackers, especially at locations more than 24 hours' travel from a reliable source of human rabies immune globulin and rabies vaccine for postexposure treatment; and all travelers involved in any activity that might bring them into direct contact with bats. Dog and bat bites or scratches should be taken seriously and postexposure prophylaxis sought even in those already immunized.
- Influenza
  - Nicaragua
    - 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
  - o Nicaragua
    - Adult polio boosters are not recommended for travel to this country.
- Routine vaccinations (adults only)
  - o Tetanus, diphtheria, pertussis
    - Nicaragua
      - 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
    - Nicaragua
      - 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.
  - o Varicella
    - Nicaragua
      - 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
    - Nicaragua
      - Recommended for adults aged ≥ 65 years and all adults with chronic disease or immunocompromising conditions.

## Malaria

#### Malaria Information

- Nicaragua
  - o General malaria information: almost exclusively P. vivax (P. falciparum transmission is minimal and limited to northern

and western Atlántico Norte). Transmission occurs throughout the year.

- Location-specific recommendations:
  - Chemoprophylaxis is recommended for all travelers: certain municipalities in the departments of Atlántico Norte, Atlántico Sur, and Jinotega (see map); the Cayos Miskitos and Corn Islands; the department of Chinandega; all cities and towns within these areas except the central urban area Chinandega.
  - Chemoprophylaxis is recommended for certain travelers (see Issues to Consider inset): certain municipalities in the departments of Atlántico Norte, Atlántico Sur, and Jinotega (see map); all cities and towns within these areas.
  - Insect precautions only are recommended (negligible transmission is reported): certain municipalities in the departments of Atlántico Sur, Matagalpa, Boaco, León, Managua [4], Masaya [5], Carazo [6], and Río San Juan; all cities and towns within these areas except Managua, Matagalpa, and León; the central urban area of Chinandega.
  - No preventive measures are necessary (no evidence of transmission exists): the cities of Managua, Matagalpa, and León; all other areas not mentioned above.

### 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.

- Nicaragua
  - **Preventive measures**: Evening and nighttime insect precautions are essential in areas with any level of transmission. Chloroquine and other antimalarials (atovaquone/proguanil, doxycycline, and mefloquine) are protective in this country.

#### 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

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

## Country Profile(s)

## NICARAGUA

### **General Information**

Nicaragua is a developing nation in the lower half of the world's economies. Located north of Costa Rica and bordering both the Caribbean Sea and Pacific Ocean in Central America, its climate is tropical in the lowlands and cooler 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

• **Tuberculosis:** This disease is common in all developing countries and also presents risk in certain developed countries. This country, while not in the highest risk category, has an incidence of over 25 cases per 100,000 population. Travelers planning to stay more than 3 months should have pre-departure PPD skin test status documented. Those who expect to have close contact with the

local populace should be tested if staying more than 1 month. Travelers should avoid persons who are coughing in crowded public places whenever possible. Domestic help should be screened for TB.

- **Dengue:** Significant risk exists in urban and rural areas throughout the country. Transmission occurs throughout the year with highest activity from May through December. Daytime insect precautions are recommended.
- Chikungunya: Risk exists in the western half of the country. Daytime insect precautions are recommended.
- Leishmaniasis: Cutaneous and mucocutaneous leishmaniasis occur in forested areas in Atlántico Norte, Atlántico Sur, Boaco, Chontales, Estelí, Jinotega, Madriz, Matagalpa, Nueva Segovia, and Río San Juan departments. Insect precautions (primarily evening and nighttime) are recommended.
- Chagas' Disease (American Trypanosomiasis): Risk to travelers is unknown but is presumed to be low in rural areas throughout the country. Travelers should avoid overnight stays in houses constructed of mud, adobe brick, or palm thatch.
- Leptospirosis: Risk exists for those engaged in hiking, biking, swimming, and other activities that involve extensive fresh water exposure. Consider doxycycline prophylaxis for those likely to encounter intense exposure.
- Marine Hazards: Jellyfish (often causing sea bather's eruption), coral, and sea urchins present risk. Dangerous (potentially deadly) jellyfish are present throughout the year, but particularly during the rainy season. Children are especially at risk, and adults wading, launching boats, or fishing.

#### **Medical Care**

- Medical care is substandard throughout the country, even in the best private medical facilities. Adequate evacuation coverage for all
  travelers is a high priority. In the event of a serious medical condition, medical evacuation to the United States is likely to be
  necessary. Hospital accommodations are inadequate throughout the country and advanced technology is lacking. Shortages of
  some routine medications and supplies may be encountered.
- For emergency services, dial 118.
- Emergency ambulance services are not available. In an emergency, individuals are taken to the nearest available hospital. This is usually a public hospital unless the individual or someone acting on their behalf indicates that he or she can pay for a private hospital.
- Physicians and hospital personnel often do not speak English, and medical reports are written in Spanish.
- Cash payment may be required prior to treatment; some private hospitals accept major credit cards.

#### **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.

#### **Consider Avoiding**

- There may be active land mines in isolated areas of the country.
- There are boundary disputes in the Caribbean coastal waters between Nicaragua and neighboring Honduras. Boats and fishing vessels have been detained and impounded. The Atlantic coastal area of Nicaragua is a known transit zone for illegal drugs.

#### Crime

- Armed banditry occurs in areas near Bonanza, La Rosita, and Siuna in northeastern Nicaragua. Incidents of carjacking have also been reported between Managua and Puerto Cabezas.
- Violent crime, including armed robbery and sexual assault, can occur in Managua, Granada, and San Juan del Sur, and also occurs in Bonanza, La Rosita, Siuna, and on Little Corn Island. Travelers should remain alert when walking in markets, in the vicinity of the old cathedral in Managua, near Tica bus (the terminal for lines coming from Honduras and Costa Rica), at public transportation terminals and in poorer areas. Avoid the Mercado Oriental in Managua.
- Travelers may be targeted by criminals posing as Nicaraguan police officers who pull over their vehicles-including those operated by
  reputable hotels-for inspection and then rob them.
- Street crime such as pickpocketing and purse snatching is common. Express kidnappings occur. Police presence is extremely sparse outside of major urban areas. Travel should be restricted to tourist areas and to daylight hours only.

 Demonstrations occur occasionally and may cause traffic disruptions. Activities observed during past protests include, but are not limited to, the use of tear gas, rubber bullets, fireworks, rock-throwing, tire burning, road blocks, bus/vehicle burning, and physical violence between members of rival political parties. Police have often been slow to respond and reluctant to interfere in violent confrontations between rival political factions. Access to Managua's international airport and to the area of Carretera a Masaya (where universities, shopping malls, and restaurants are located) may be affected.

#### **Miscellaneous Safety**

- Travelers to the Island of Ometepe have been victims of fraudulent tour guides. Hotels and local authorities can provide information on reputable tour guides.
- Strong currents off sections of Nicaragua's Pacific coast have resulted in a number of drownings.
- Hiking in volcanic or other remote areas can be dangerous and travelers should take appropriate precautions.

#### **Road Conditions and Hazards**

• Driving standards are fair. Except for the Pan-American Highway, most roads lack shoulders and are narrow, potholed, and poorly lit. Road signs are usually non-existent, and most streets are unnamed. Detours are common but are often not marked. Traffic accidents are a common cause of death and injury.

#### **Driving Laws**

- Drivers involved in road accidents resulting in death or injury are subject to arrest and/or detention until responsibility has been established by the courts.
- Drivers suspected of driving while intoxicated will be taken into custody. Police spot checks are frequent.

#### **Public Transportation**

- Vehicles, especially taxis and buses, are poorly maintained. Public transportation buses are overcrowded, unreliable, and often targeted by pickpockets, and should be avoided as much as possible.
- There have been incidents of passengers being robbed, sometimes with violence, by taxi drivers or by people posing as taxi drivers using unauthorized taxi signs on their cars. Travelers should only take taxis from hotels and main entrances of shopping malls and make detailed arrangements for the return trip.

#### **Natural Disasters and Climate**

- The hurricane season extends from June to the end of November. Flooding is common during this period. Landslides also occur throughout the year.
- Nicaragua is located in an active seismic zone. Volcanic activity also occurs. San Cristobal and Cerro Negro volcanoes are particularly active.
- During the wet season (April to October), it is usually better to fly to and from the Atlantic coast of Nicaragua on early morning flights because of the risk of severe storms later in the day.

#### FAA Advisory

• The U.S. Federal Aviation Administration has assessed this country's civil aviation authority and determined that it does not provide safety oversight of its air carrier operators in accordance with the minimum safety oversight standards established by the International Civil Aviation Organization.

#### **Exit Fees**

• An airport tax is charged upon departure.

#### Other Laws

- Penalties for possession, use, or trafficking of illegal drugs are strict. Convicted offenders can expect jail sentences and heavy fines.
- Travelers should carry photo identification (a photocopy of the passport identification and visa pages).

• It is illegal to photograph official buildings in Nicaragua.

#### Availability of Basic Infrastructure and Tourist Facilities

- Nicaragua lacks an extensive tourism infrastructure. Cell phone coverage outside urban areas is fair in the central and Pacific areas, but can be lacking, especially in mountainous terrain and in the Caribbean.
- Power blackouts in all parts of the country are frequent, especially during the dry season from July to August.

#### Currency

• The currency is the córdoba (NIO). Most restaurants and hotels in Managua accept credit cards. U.S. dollars are widely used. There have been reports of credit card fraud. Foreign currency should only be changed at banks or official exchange houses.

#### **Visa/HIV Testing**

• The U.S. Department of State is unaware of any HIV/AIDS-related entry restrictions for visitors to or foreign residents of Nicaragua.

#### **Consular Information**

Selected Embassies or Consulates in Nicaragua

- U.S. Embassy: Tel.: [+505] 2252-7100, nicaragua.usembassy.gov
- Canadian Embassy: Tel.: [+505] 2268-0433
- U.K. Consulate: Tel.: [+505] 2254-5454
- Australian Consulate: Tel.: [+505] 2266-1925, x1102

Nicaragua's Embassies or Consulates in Selected Countries

- In the U.S.: Tel.: [+1] 202-939-6531
- In the U.K.: Tel.: [+44] 1-409-2536

## **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. Tatooing 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, 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.

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