

# Planning Your Vaccinations

Before visiting Malawi, you may need to get the following vaccinations and medications for vaccine-preventable diseases and other diseases for which you may be at risk.

**Note:** Your doctor or health-care provider will determine what you will need, depending on factors such as your health and immunization history, areas of the country you will be visiting, and planned activities.

It is recommended you see a health-care provider at least 4-6 weeks before your trip to allow time for your vaccines to take effect and to start taking medicine to prevent malaria, if you need it.

If you have less than 4 weeks before you leave on your trip, you should still see a health-care provider for required vaccines, anti-malaria drugs and other medications and information about how to protect yourself from illness and injury while travelling.

## Be sure your routine vaccinations are up-to-date

Routine vaccines, as they are often called, such as for influenza, chickenpox (or varicella), polio, measles/mumps/rubella (MMR), and diphtheria/pertussis/tetanus (DPT) are given at all stages of life.

## Vaccine-Preventable Diseases

Vaccine recommendations are based on the best available risk information. Please note that the level of risk for vaccine-preventable diseases can change at any time.

## Malaria

*Malaria risk area includes all of Malawi.*

\*If you will be visiting a malaria risk area, you will need to take one of the following antimalarial drugs:

- Atovaquone/Proguanil
- Doxycycline
- Malarone or Mefloquine
- (Primaquine in special circumstances and only after G6PD testing)

NOTE: Chloroquine is NOT an effective antimalaria drug in Malawi and should not be taken to prevent Malaria in this region.

## More Information About Malaria

Malaria is always a serious disease and may be a deadly illness. Humans get malaria from the bite of a mosquito infected with the parasite. Prevent this serious disease by seeing your health-care provider for a prescription antimalarial drug and by protecting yourself against mosquito bites.

Travelers to malaria-risk areas in Malawi, including infants, children, and former residents of Malawi should take one of the following antimalarial drugs listed above.

### Symptoms

Malaria symptoms may include:

- fever
- chills
- sweats
- headache
- body aches
- nausea and vomiting
- fatigue

Malaria symptoms will occur at least 7 to 9 days after being bitten by an infected mosquito. Fever in the first week of travel in a malaria-risk area is unlikely to be malaria; however, you should see a doctor right away if you develop a fever during your trip.

Malaria may cause anemia and jaundice. Malaria infections with *Plasmodium falciparum*, if not promptly treated, may cause kidney failure, coma, and death. Despite using the protective measures outlined above, travelers may still develop malaria up to a year after returning from a malarious area. You should see a doctor immediately if you develop a fever anytime during the year following your return and tell the physician about your travel.

## Tuberculosis

### Description

*Mycobacterium tuberculosis* is a rod-shaped bacterium that can cause disseminated disease but is most frequently associated with chronic pneumonia. Transmission occurs when a contagious patient coughs, spreading the bacilli through the airborne route to a person sharing the same air space. The exposed person may acquire latent infection (sometimes abbreviated LTBI) or,

depending on host factors, tuberculosis disease. Both conditions can usually be treated successfully with medications.

Multi-drug resistant or MDR-TB is TB resistant to at least two of the most effective drugs, isoniazid and rifampin (also called first-line drugs). XDR-TB is resistant to at least these two drugs and three of the six second-line drugs used to treat MDR-TB.

## Risk for Travelers

To become infected, a person usually has to spend a relatively long time in a closed environment where the air was contaminated by a person with untreated tuberculosis who was coughing and who had numerous *M. tuberculosis* organisms (or tubercle bacilli) in secretions from the lungs or larynx. Infection is generally transmitted through the air; therefore, there is virtually no danger of it being spread by dishes, linens, and other items that are touched, or by most food products. However, it can be transmitted through unpasteurized milk or milk products (e.g. some cheeses) obtained from infected cattle.

Documented sites of XDR-TB include crowded hospitals, prisons, homeless shelters, and other settings where susceptible persons come in contact with infected persons with TB disease.

**\*\*Activity that our team does at the Passion Center for Children may put us at risk for being exposed to tuberculosis. *Travelers who anticipate possible prolonged exposure to tuberculosis (e.g. those who could be expected to come in contact routinely with hospital visits, prison visits, or homeless shelter populations) should be advised to have a tuberculin skin test or QuantiFERON TB-Gold test (QFT-G) before leaving the United States. If the result is negative, they should have a repeat test approximately 8-10 weeks after returning.*** Because persons with HIV infection are more likely to have an impaired response to the test, travelers should be advised to inform their physicians about their HIV status. Except for travelers with impaired immunity, travelers who have already been infected are unlikely to be reinfected.

Travelers who anticipate repeated travel with possible prolonged exposure or an extended stay over a period of years in an endemic country should be advised to have a baseline two-step tuberculin test or a singlestep QFT-G. If the baseline test is negative, annual screening would identify recent infection, which should prompt medical evaluation to exclude disease and treatment for latent infection.

## Medical Items to Bring With You

- **The prescription medicines you take everyday.** Make sure you have enough to last during your trip. Keep them in their original prescription bottles and always in your carry-on luggage. Be sure to follow security guidelines for carry-on luggage, if the medicines are liquids.
- Antimalarial drugs, prescribed by your doctor
- Medicine for diarrhea, usually over-the-counter (i.e. Immodium). Request from your physician a prescription for Ciprofloxacin 500mg for persistent diarrheal illness.

NOTE: Some drugs available by prescription in the US are illegal in other countries. Check the US Department of State Consular Information Sheets for Malawi. If your medication is not allowed in the country you will be visiting, ask your health-care provider to write a letter on office stationary stating the medication has been prescribed for you.

Other items you may need:

- Iodine tablets and portable water filters to purify water if bottled water is not available. The places we go in Malawi always have bottled water available. We make a point to have bottled water with us at all times.
- Sunblock and sunglasses for protection from harmful effects of UV sun rays.
- Antibacterial hand wipes or alcohol-based hand sanitizer containing at least 60% alcohol.
- To prevent insect/mosquito bites, bring:
  - Lightweight long-sleeved shirts, long pants, and a hat to wear outside, whenever possible.
  - Flying-insect spray to help clear rooms of mosquitos. The product should contain a pyrethroid insecticide; these insecticides quickly kill flying insects, including mosquitos.
  - \*Bed nets treated with permethrin.
 (We will be returning to and staying our nights on the Zomba Plateau. Its higher altitude, cooler temperatures, and moist climate reduces the mosquito population. Bed nets are an option.)

## Prevent Insect Bites

Many diseases, like malaria and dengue, are spread through insect bites. One of the best protections is to prevent insect bites by:

- Using insect repellent (bug spray) with 30-50% DEET. Picaridin, available in 7% and 15% concentrations, requires more frequent application. There is less information available on how effective picaridin is at protecting against all of the types of mosquitos that transmit malaria.
- Wearing long-sleeved shirts, long pants, and a hat outdoors.
- Remaining indoors in a screened or air-conditioned area during the peak biting period for malaria (dusk and dawn).
- \*Sleeping in beds covered by nets treated with permethrin.
- Spraying rooms with products effective against flying insects, such as those containing pyrethroid.

## Be Careful About Food and Water

Diseases from food and water are the leading cause of illness in travelers. Follow these tips for safe eating and drinking:

- Wash your hands often with soap and water, especially before eating. If soap and water are not available, use an alcohol-based hand gel (with at least 60% alcohol).
- Drink only bottled water or boiled water, or carbonated (bubbly) drinks in cans or bottles. Avoid tap water, fountain drinks, and ice cubes.
- Do not eat food purchased from street vendors.
- Make sure food is fully cooked.
- Avoid dairy products, unless you know they have been pasteurized.

Diseases from food and water often cause vomiting and diarrhea. Make sure to bring diarrhea medicine with you so that you can treat mild cases yourself.

## After You Return Home

If you are not feeling well, you should see your doctor and mention that you have recently traveled. Also tell your doctor if you were bitten or scratched by an animal while traveling.

Because you have visited a malaria-risk area, continue taking your antimalarial drug for 4 weeks (doxycycline or mefloquine) or seven days (atovaquone/proguanil) after leaving the risk area.

Malaria is always a serious disease and may be a deadly illness. If you become ill with a fever or flu-like illness either while traveling in a malaria-risk area or after you return home (for up to 1 year), you should seek immediate medical attention and should tell the physician your travel history.

If your initial Tuberculin Skin test result was negative, you should have a repeat test approximately 8-10 weeks after returning.

\*Important Note: This document is not a complete medical guide for travelers to Malawi. Consult with your doctor for specific information related to your needs and your medical history; recommendations may differ for pregnant women, young children, and persons who have chronic medical conditions.