Missionary Immunization and Malaria Prevention Guidelines – Updated September 26, 2022

Please discard ALL previous immunization guidelines.

Immunizations are not a requirement for missionary service, but young or senior missionaries who decline or are unable to receive immunizations will serve in their home countries. This policy helps protect both the missionary and the populations to be served. Vaccines must be approved by the Advisory Committee on Immunization Practices (ACIP) in the United States or by an approved government agency internationally. Some vaccines contain live viruses and certain precautions apply. MMR, chicken pox, influenza by nasal spray, and yellow fever vaccines contain live viruses. They must be given on the same day or separated by 28 days before another live virus vaccine can be given. For example, one could receive MMR, chicken pox, and influenza vaccines on day 1, but would have to wait 28 days before receiving yellow fever.

Each missionary should complete their immunizations BEFORE entering the MTC.

Immunizations Required for International Assignments; Recommended for All Assignments

In some locations all vaccines may not be available and immunizations may need to be given during MTC training. An appropriate fee may be charged to the missionary or home stake for this service. The duration of the MTC training does not always allow sufficient time to follow standard vaccine schedules, so every attempt should be made by the family and/or local priesthood to complete immunizations before entering the MTC. In certain areas of the world, it may be more appropriate to complete vaccination series during missionary service, depending on vaccine availability infield, rather than deferring to the less reliable post-mission completion.

COVID-19 Vaccine: All missionaries are encouraged to be "good global citizens" (First Presidency, 1/19/2021) and be vaccinated against COVID-19, including the primary series and boosters. For senior missionaries to serve outside their home country, this vaccination is required. It is recommended but not required for young missionaries serving outside their home country unless the assigned country requires it.

Tetanus-Diphtheria-Pertussis: A primary series should have been received in childhood. If no vaccines have been received or the immunization status is unknown, a catch-up schedule of 3 doses at 0, 30, and 180 days is necessary. At least one of these doses must be Tdap vaccine. A Tdap booster is the preferred vaccine to protect against all three diseases and should be given after age 11. This dose must be received within 8 years of starting a mission in order to give protection throughout the service. If a missionary has a dirty or high-risk wound during the mission, a Td booster will be needed, especially if it occurs more than 5 years after the pre-mission booster was given. If Tdap vaccine is not available in a missionary's home area, Td vaccine can be substituted.

Measles-Mumps-Rubella (MMR) LV (live virus): This vaccine is not needed for those born before 1957. Two doses of MMR should have been received, usually ages 1 and 4–6 years. If only one dose, or if a person is unsure, a second dose should be given. Two doses of this vaccine given >28 days apart in older children and adults give 99% lifetime measles immunity. Some countries (e.g., Japan) use measles/rubella vaccine; thus, their young adults are not protected from mumps. These missionaries should not be delayed in their home country but should be urged to get MMR vaccine in the MTC or in field. MMR is required if they are serving outside their home country.

Hepatitis A: Hep A is a 2-dose series given on days 0, and 180 for lifetime protection. One dose protects for two years. Persons from developing countries may not need Hep A vaccine. Senior missionaries residing in developed countries and serving in their home countries are not required to have Hep A or Hep B immunizations.

Hepatitis B: Hep B is a 3-dose series usually given on a 0, 30, and 180-day schedule for lifetime protection. An accelerated schedule is approved for 0, 30, and 120 days. At least 2 doses must be received before entering the MTC but gives only 60–70% protection during the mission. If only two doses are given before missionary service, a third should be given at least 3 months after the 2nd dose during the mission or following its completion. Heplisav-B is a new vaccine

that is a 2-dose option with a schedule of 0 and 30 days, with reported higher immune response, but it is more expensive.

Combined Hep A/Hep B (Twinrix): This is available and is approved for an accelerated schedule of 0, 7, and 21–30 days, with a 4th dose recommended after 12 months for lifetime protection. If a person has started Hep A and/or Hep B vaccines separately, Twinrix may be used to complete the immunization.

Country/Mission Specific Required Immunizations

Each missionary will be notified if these vaccinations are required in their assigned mission.

Polio (P): Wild virus polio and oral vaccine derived polio is occurring in a number of countries, which are listed in the country list beginning on page 5. A primary series is usually given in childhood, but if no vaccine has been given or if immunization status is unknown, a catch-up schedule with 3 injections of inactivated polio vaccine (IPV) at 0, 28, and 56 days should be given. A booster dose is required if one is called to serve in a high-risk country. A single booster following the primary series gives lifetime immunity. For senior missionaries born before 1980, we assume prior polio immunity exists because of widespread use of OPV in children in many countries resulting in herd immunity. Such persons would not need a polio booster with IPV unless they were going to serve in a high-risk country. Missionaries going to any low-risk polio country are not required to have had polio vaccine, but it is recommended.

Typhoid (TY): This vaccine is required for missionaries going from developed countries to developing countries, where it is not usually available. Two vaccines are approved and available: (1) a single injection good through up to 2.5 years; (2) an oral dosing of one capsule taken on days 0, 2, 4, and 6, good for five years. The capsules need to be refrigerated, are best taken on an empty stomach, and should not be taken concurrently with an antibiotic.

Yellow Fever (YF-LV): YF-VAX is again available in health departments and travel clinics. This vaccine should be given in advance of entering the MTC because of common mild adverse reactions (10% – 30%). Those over age 65, especially if they have never been vaccinated for YF, have increased adverse reaction risk, some of which are serious. These persons should consult their personal physicians regarding their risks of vaccine reaction versus the disease risk in their assigned missions. It is now generally accepted that a single shot of YF-VAX confers lifetime immunity, although some countries still require a booster dose after 10 years.

Japanese Encephalitis (JE): The Missionary Health Services Division (MHSD) requires Japanese Encephalitis Vaccine (JEV) in hyperendemic countries, which are marked with an X in the JE column in the Table which follows. The CDC also advises JEV in additional endemic but lower risk countries, which are marked OPT in the Table, but MHSD does not require JEV in those countries. There are 2 JEVs preferred by MHSD:

1. Ixiaro is an inactivated virus vaccine given in 2 injections 28 days apart. Recently an accelerated schedule has been approved for ages 18–65 which is 2 injections only 7 days apart. It is best to have the second dose at least 14 days before entering a high-risk area. This vaccine is the only JEV approved and available in the US and New Zealand. A booster dose 12 or more months after the primary series has been suggested by the CDC, but the MHSD does not feel there is sufficient evidence for such practice to be required by the MD.
2. Imojev is a live virus vaccine that is given as a single injection, produced in Australia, and available in many Asian countries. It is less expensive than Ixiaro and equally as effective. Other JEVs may be used in endemic countries, which are satisfactory to the MHSD, except for JE-VAX, which is derived from mouse brain tissue and has unacceptable side effects.

Missionaries required to receive JEV attend one of 3 MTCs: Provo, Philippines, or New Zealand. Only Ixiaro is available in Provo and New Zealand. The availability of either Ixiaro or Imojev has been unreliable at the Philippines MTC. MHSD prefers that immunizations be completed before entering an MTC, but if cost or availability prevents this from being accomplished, JEV can be provided at Provo and New Zealand, but only possibly at the Philippines. In some circumstances, it may be necessary to get the preferred or acceptable JEV on arrival in the mission and before being sent

to higher JE risk rural areas. This planning places an additional burden on mission personnel, but more accurately targets missionaries with greater need for JEV. Those countries are noted with footnote *3 in the JE column in the country table.

Recommended Immunizations

Influenza: Injectable vaccine needs to be given at least 2 weeks **BEFORE** entering MTC during September through March in the northern hemisphere, and March through August in the southern hemisphere, to prevent epidemics under dormitory living conditions. Missionaries should be certain they receive the current vaccine if possible. Repeating the influenza vaccination is appropriate if changing hemispheres and a 3-month time span has elapsed. During July and August in the northern hemisphere the current vaccine is not available, and so missionaries may come to the MTC without being immunized for influenza, making it necessary to receive the vaccine at the MTC or infield. Quadrivalent vaccine is preferred for all ages; a high-does vaccine is advised for those over age 65. In times of high influenza prevalence or virulence, this vaccine may be required.

Meningitis: The five meningococcal serotypes that cause meningitis are A, B, C, W-135, and Y. The existing vaccines (Men A-Y) protect against types A, C, W-135, and Y. Two vaccines (Men B) are approved to protect against type B infection. The Missionary Department (MD) requires Men A-Y vaccine for all missionaries (including seniors) going to high-risk countries-see IG table. The MD recommends it for all young missionaries at least 10 days before entering an MTC. It is not recommended for senior missionaries going to low-risk countries or before entering an MTC. If the most recent dose of Men A-Y was given more than 5 years before the end of the mission, a booster dose is advisable. Men B vaccine is recommended for those with an increased risk of meningococcal disease: people with complement deficiencies, anatomic or functional asplenia, and any exposed persons during an outbreak of type B meningitis.

Pneumonia: There are presently two types of vaccines: pneumococcal conjugate vaccine (PCV) and pneumococcal polysaccharide vaccine (PPSV). They are recommended for all seniors over 65, and for any age person with chronic heart or lung conditions, including asthmatics taking prevention or maintenance medications, those with sickle cell disease, diabetes, after splenectomy, or other immune challenged condition. Whether a person takes one or both vaccines should be determined after an informed discussion with his or her personal physician.

Chicken Pox (varicella-LV): This two-injection live virus vaccine is given 4 weeks apart and presumably provides lifetime immunity. It is advised for those who have never been vaccinated or never had the disease. Those persons born before 1980 in the US do not need the vaccine. If a missionary is exposed to chicken pox infield, a single dose of vaccine is 90% effective in preventing disease in children if given within 3 days of exposure. There is no data regarding this for adults.

Shingles (H. Zoster): Shingrix is the only approved vaccine in the US, Zostavax is no longer available. Shingrix is 97% effective and is two dose injections given at 0 and 60 to 180 days. It is recommended for those over age 50, even in those previously vaccinated with Zostavax, and also in those over age 18 with serious immune deficiencies.

Other Vaccines

Rabies: The emphasis of AMAs and mission personnel should be on prevention of rabies exposure. Rabies is transmitted through the bite or saliva exposure of a rabid animal. Missionaries should not pet or play with any animals including dogs, cats, bats, racoons, mongooses, skunks, foxes, monkeys, or any wild animal. If a bite occurs, wash the wound thoroughly with soap and water, no matter how small it is, and promptly notify mission health personnel. The animal should be observed for any signs of illness for 10 days where possible.
Detailed management of post rabies exposure is available from CDC and WHO websites:
https://www.cdc.gov/rabies/medical_care/index.html
https://www.who.int/ith/vaccines/rabies/en/

The Missionary Health Services Division advises following either of these guidelines with missionaries who have likely been exposed to rabies infection from animal bites or saliva. When considering the high risk of a fatal outcome of rabies infection, it is important to follow post-exposure prophylaxis. Since some areas of the world do not have ready access to vaccine, rabies immune globulin (RIG), or equine rabies immune globulin (ERIG), AMAs should

prepare for such urgent situations by locating in advance sources for these products. Aetna International or its local affiliates can be of help in procuring them.

Cholera: Vaxchora is the only cholera vaccine approved in the US. It is a live-oral vaccine effective for outbreaks of cholera but does not provide long term protection. The missionary department does not recommend it for routine pre-mission use in at risk countries.

Malaria Prevention

Malaria is a mosquito borne disease caused by 5 different Plasmodium protozoan species and is a major public health problem in many countries causing hundreds of thousands of deaths annually in the world. **There is no vaccine to prevent this disease, but it can be prevented** by careful attention to procedures which decrease exposure to mosquito bites, as well as taking medication when indicated. Mosquito bite prevention may include the following steps:

1. Clothing that covers as much skin as possible.
2. Treatment of external clothing with permethrin spray, available through Church Distribution.
3. Use of repellent on exposed skin. Preferred repellents include those containing DEET (20–35%), oil of lemon eucalyptus or picaridin.
4. Sleeping under bed nets, especially those treated with an insecticide such as permethrin.
5. Screened windows and doors where possible.
6. Use of fans at night which decrease bites by about 1/3 that of treated bed nets.

Several medications can be taken to suppress illness in high-risk areas; they actually do not prevent being infected by the protozoan but do prevent illness. The Missionary Department (MD) advises doxycycline 100 mg daily which is effective in most cases. This treatment is particularly essential for those persons coming from a low or non-prevalent area who are assigned in high prevalence areas. Missionaries native to high-risk areas are likely to have some immunity to the disease and consequently have less serious or frequent illness; these missionaries may not be required to take preventive medication.

The MD has listed the countries in the table on pages 5–7 as 1, 2, 3, or 4, according to their risk for malaria: 1) No risk; 2) Low risk for malaria but insect borne disease common; 3) Moderate risk; 4) High risk for malaria.
The MD has prepared an educational video on malaria prevention for all missionaries going to at-risk areas to view before entering an MTC. This training is an important part of their preparations to serve and can be used at other training meetings during missionary service.

Country Table for Mission Specific Immunization and Malaria Prevention

Legend

X Immunization required
TY Typhoid
P Polio
YF Yellow Fever
Men Meningitis
JE Japanese Encephalitis
OPT Optional JEV—make an informed choice

Malaria Prevention Code:

1 Standard insect precautions: Screened windows and doors, repellent use
2 Educational video about malaria prevention, #1 items plus clothing to cover exposed skin, consider permethrin treatment of clothing.
3 Education, #2 items plus consistent permethrin treatment and use of bed nets at night
4 Education, #3 items plus use of doxycycline or other drugs to prevent malaria illness

Specific immunizations are required for missionaries serving in the countries so indicated in the following table, as is malaria prevention. Countries not listed require the basic immunizations.

Immunizations checked with X are REQUIRED in those countries.
Malaria prevention and/or medication required as noted in last column. There is no vaccine for malaria.

COUNTRY	TY	P	YF	Men	JE	Malaria
Afghanistan	x	x				2
Algeria	x					2
Angola	x	5	x	x		4
Argentina	x		x1			2
Azerbaijan						2
Bahamas, The	x					1
Bahrain	x					1
Bangladesh	x				x	3
Barbados Bridgetown Mission (Barbados, Anguilla, French Guiana, Grenada, Guadeloupe, Martinique, St. Barthelemy, St. Lucia, St. Martin, St Vincent and the Grenadines)	x		x			2
Belize	x					2
Benin (Africa)	x	x	x	x		4
Bermuda	x					1
Bhutan	x				x	2
Bolivia	x		x			2
Botswana (malaria in north only)	x			x		3
Brazil (Belem, Brasilia, Maceio, Manaus, Salvador, Salvador Sul, Teresina)	x		x			3
Brazil (all other missions not noted above)			x			2
Brunei	x				OPT	2
Burkina Faso	x	5	x	x		4
Burma (Myanmar)	x				x	3
Burundi	x		x	x		4
Cambodia	x				x3	3
Cameroon	x	x	x	x		4
Cape Verde (Praia mission)	x		x	x		2
Central African Republic	x	x	x	x		4
Central Eurasia Mission (Azerbaijan, Bulgaria, Tajikistan, Turkey, Turkmenistan, Uzbekistan)	x					2
Chad	x	x	x	x		4
Chile	x					1
China	x				OPT	2
Christmas Island (Australia)	x					1
Colombia	x		x2			2–3
Comoros	x			x		4
Congo	x	5	x	x		4
Cook Islands (New Zealand)	x					2
Costa Rica	x					2

COUNTRY	TY	P	YF	Men	JE	Malaria
Côte d'Ivoire (formerly Ivory Coast)	x	x	x	x		4
Cuba	x					1
Democratic Republic of Congo (formerly-Zaire)	x	x	x	x		4
Djibouti	x	5		x		3
Dominican Republic	x					2
East Timor (Indonesia)	x				OPT	3
Ecuador (Guayaquil West and North)	x		2			2
Ecuador (Guayaquil South, Quito, Quito North)	x		x			3
Egypt	x					1
El Salvador	x					2
Equatorial Guinea	x	x	x	x		4
Eritrea	x	5	x	x		3
Ethiopia	x	x	x	x		3
Fiji (Suva)	x					2
French Polynesia (incl. Island groups)	x					2
Gabon	x		x	x		4
Gambia, The	x	x	x	x		4
Ghana	x	5	x	x		4
Guam (US)	x					2
Guatemala	x					2
Guinea	x	x	x	x		4
Haiti	x					3
Honduras	x					2
Hong Kong (including Macao)	X					1
India (Bangalore is x, New Delhi is OPT)	x				x, OPT	3
Indonesia	x				OPT	3
Iran	x			x		2
Iraq	x					2
Jamaica	x					1
Japan (Islands of Kyushu & Shikoku)					OPT	2
Jordan	x					1
Kazakhstan	x					1
Kenya	x	x	x	x		4
Kiribati (formerly Gilbert Islands)	x					2
Korea, South	x				OPT	2
Kuwait	x					1
Kyrgyzstan	x					1
Laos	x				x	3
Lebanon	x					1
Lesotho	x					2
Liberia	x	x	x	x		4
Libya	x					1
Madagascar (Antananarivo mission)	x	x		x		4
Malawi	x	x		x		4
Malaysia (malaria in rural areas)	x				OPT	3
Maldives	x					2
Mali	x	X	x	x		4
Marshall Islands	x					2
Mauritania	x		x	x		4
Mauritius	X					2
Mayotte (French territorial collectivity)	x					2
Mexico	x					2
Micronesia (Federated States of)	x					2
Mongolia	x					1
Morocco	x					2
Mozambique	x	x		x		4
Namibia	x			x		3
Nauru	x					2
Nepal	x				x	2
New Caledonia (France)	x					2
Nicaragua	x					3
Niger	x	x	x	x		4
Nigeria	x	x	x	x		4
Niue (New Zealand)	x					2
Northern Mariana Islands	x					2
Oman	x					2
Pakistan	x	x			OPT	3
Palau	x					2
Panama (S. Panama, YF prevent. as needed)	x		x			2

COUNTRY	TY	P	YF	Men	JE	Malaria
Papua New Guinea	x				x	4
Paraguay	x		x			2
Peru (Chiclayo, Cusco, Piura, Iquitos and Huancayo mission)	x		x			3
Peru (Trujillo North and South, Lima North, South, East, West, and Central, and Arequipa missions)	x					2
Philippines	x				OPT	2
Puerto Rico Mission (Puerto Rico, Virgin Islands (British and US), St. Croix, St. Kitts-Nevis)	x					1
Qatar	x					1
Réunion (France)	x					2
Russia	x					1
Rwanda	x		x	x		4
Samoa (formerly Western Samoa)	x					2
Samoa, America (US)	x					2
São Tome & Principe	x		x			3
Saudi Arabia	x			x		2
Senegal	x	x	x	x		4
Seychelles	x					1
Sierra Leone	x	x	x	x		4
Singapore	x				OPT	2-3
Solomon Islands	x					3
Somalia	x	x	x	x		4
South Africa	x					2
Sri Lanka	x				x	2
Sudan North	x	5	x	x		3
Sudan South	x	x	x	x		4
Swaziland	x			x		3
Syria	x					2
Tahiti	x					2
Taiwan					OPT 3	1
Tajikistan	x	x				2
Tanzania	x			x		4
Thailand	x				x3	3
Togo	x	5	x	x		4
Tokelau (New Zealand)	x					2
Tonga	x					2
Trinidad Port of Spain Mission (Trinidad, Tobago, Aruba, Bonaire, Curacao, Guyana, and Suriname)	x		x			3
Tunisia	x					1
Turkey	x					2
Turkmenistan	x					2
Tuvalu	x					2
Uganda	x	x	x	x		4
United Arab Emirates	x					1
Uruguay	X					1
Uzbekistan	x					2
Vanuatu	x					3
Venezuela	x		x			3
Vietnam	x				x	2
Western Sahara	x					2
Yemen	x	x				4
Zambia	x			x		4
Zimbabwe	x			x		4

Source: Missionary Public Health Committee

1 – YF vaccine is needed in the Resistencia and Salta Missions.

2 – All missionaries going to Colombia need YF vaccine. Missionaries going to the Lima, Peru, MTC and the Bogota, Colombia, MTC and then to serve in Ecuador need to have YF vaccine. The Ecuador government requires YF vaccine for anyone entering Ecuador from Peru or Colombia.

3 – Ixiaro Imojev, or other acceptable vaccine may be obtained in this country if necessary. The vaccine should be received before the missionary serves in a rural area.

4 – YF documentation is required in Cape Verde to renew visas every 6 months. Missionaries must travel to Africa in order to renew their visas, and Cape Verde requires evidence of YF vaccination as they come back into the country. There is not a risk of getting the disease in Cape Verde.

5 – This country has had no significant WVP (wild virus polio) or VDP (vaccine derived polio) in the past two years, but a neighboring country has. Polio vaccination is highly recommended but not required.