

Ecuador

WHO and CDC Statements

Malaria Risk and Prevention

WHO - *International Travel and Health* (current online update, Country List)

(2015) Malaria risk – *P. vivax* (86%), *P. falciparum* (14%) – exists throughout the year below 1500 m, with moderate risk in coastal provinces. Malaria risk due to *P. falciparum* is higher in Esmeraldas Province. There is no risk in Guayaquil, Quito and other urban areas of the inter-Andean region.

- Recommended prevention in risk areas: **C** – Risk of *P. falciparum* malaria, with reported chloroquine and sulfadoxine–pyrimethamine resistance. Mosquito bite prevention plus atovaquone–proguanil or doxycycline or mefloquine chemoprophylaxis (select according to reported side effects and contraindications) ^a

^aAlternatively, when travelling to rural areas with low risk of malaria infection, mosquito bite prevention can be combined with stand-by emergency treatment (SBET).

WHO Country List footnote: When available for yellow fever, malaria or other requirements, the date of the most recent update or confirmation is indicated in parentheses in the country list. If no date is indicated, the most recent update or confirmation was provided before 2013.

CDC - *Health Information for International Travel* (current online edition)

Areas with malaria: All areas < 1,500 m (< 4,921 ft). Not present in the cities of Guayaquil and Quito or the Galápagos Islands.

- Estimated relative risk of malaria for US travelers: Low
- Drug resistance⁴: Chloroquine
- Malaria species: *P. vivax* 90%, *P. falciparum* 10%
- Recommended chemoprophylaxis:
 - Guayas, Esmeraldas, and Canar Provinces: Atovaquone-proguanil, doxycycline, or mefloquine.
 - All other areas with malaria: Atovaquone-proguanil, doxycycline, mefloquine, or primaquine.⁵

⁴ Refers to *P. falciparum* malaria unless otherwise noted.

⁵ Primaquine can cause hemolytic anemia in people with glucose-6-phosphate dehydrogenase (G6PD) deficiency. Patients must be screened for G6PD deficiency before starting primaquine.

Yellow Fever Vaccination

WHO - *International Travel and Health* (current online update, Country List)

Country requirement: (2015) a yellow fever vaccination certificate is required for travellers over 1 year of age arriving from countries with risk of yellow fever transmission. The certificate of yellow fever vaccination is valid for life.

WHO Country List footnote: When available for yellow fever, malaria or other requirements, the date of the most recent update or confirmation is indicated in parentheses in the country list. If no date is indicated, the most recent update or confirmation was provided before 2013.

Yellow fever vaccine recommendation: yes

Recommended for all travellers aged 9 months or over travelling to the following provinces east of the Andes at altitudes below 2300 m: Morona-Santiago, Napo, Orellana, Pastaza, Sucumbios and Zamora-Chinchiipe.

Generally not recommended for travellers whose itineraries are limited to the following provinces west of the Andes

and at altitudes below 2300 m: Esmeraldas, Guayas, Los Rios, Santa Helena, Santo Domingo de los Tsachilas, designated areas of Azuay, Bolivar, Canar, Carchi, Chimborazo, Cotopaxi, El Oro, Imbabura, Loja, Pichincha and Tungurahua.

Not recommended for travellers whose itineraries are limited to all areas above 2300 m altitude, the cities of Guayaquil and Quito, and the Galápagos Islands.

CDC - Health Information for International Travel (current online edition)

Yellow fever vaccine recommendation:

Recommended for all travelers \geq 9 months of age traveling to areas $<2,300$ m in elevation² in the following provinces east of the Andes Mountains: Morona-Santiago, Napo, Orellana, Pastaza, Sucumbios, and Zamora-Chinchiipe.

Generally not recommended for travelers whose itinerary is limited to areas $<2,300$ m in elevation² in the following provinces west of the Andes Mountains: Esmeraldas, Guayas, Los Rios, Manabi, Santa Elena, Santo Domingo de los Tsachilas, and designated areas of Azuay, Bolivar, Canar, Carchi, Chimborazo, Cotopaxi, El Oro, Imbabura, Loja, Pichincha, and Tungurahua.

Not recommended for travelers whose itineraries are limited to all areas $>2,300$ m in elevation,² the cities of Guayaquil and Quito, or the Galápagos Islands (see Map 3-17).

²An elevation of 2,300 m is equivalent to 7,546 ft.