



衛生防護中心 Centre for Health Protection

Scientific Committee on Vector-borne Diseases

Global Malaria Risk Summary May 2022

Purpose

This document serves to provide a general reference for healthcare professionals who provide health advice to travellers from Hong Kong to areas with risk of malaria infection.

Background

2. In Hong Kong, malaria is a notifiable disease under the Prevention and Control of Disease Ordinance (Cap 599) and notification information since 1946 is available. The annual number of cases was at a record high in 1946 with more than 2,000 cases recorded. In the past few decades, the number of cases has decreased markedly. Apart from a brief upsurge to more than 700 cases related to Vietnamese migrants in 1989, the annual number of cases remained at below 400. Since the 1970s, there has been a shift from locally-acquired to imported infections, and the last local indigenous case was recorded in 1998.

3. In the past 10 years (2012 - 2021), the Centre for Health Protection (CHP) of the Department of Health recorded a total of 195 cases, with the annual number of cases ranging from 4 to 30. All cases, except for three, were imported from endemic countries, mainly from India, Nigeria and Pakistan. The remaining three cases were due to recrudescence from past subclinical infection of *Plasmodium malariae*. Details of classification and place of origin for imported cases can be found in **Annex 1**.



4. The Scientific Committee on Vector-borne Diseases (SCVBD) under the CHP compiled the first “Global Malaria Risk Summary” (hereafter referred to as “the Summary”) in 2007, which described the malaria risk of endemic countries and areas for reference by healthcare professionals. Since then, the Summary has been updated regularly, and the previous update was done in October 2019. This paper highlights the major changes in the global epidemiology and risk of malaria from October 2019 to May 2022.

Method and explanatory notes

5. Understanding the global epidemiology of malaria relies on accurate disease and laboratory surveillance information provided by relevant countries and areas. Apart from the World Health Organization (WHO), overseas health authorities including the Centers for Disease Control and Prevention (CDC) of the US, the Public Health Agency of Canada (PHAC), Public Health England (PHE) and the National Travel Health Network and Centre (NaTHNaC) of the UK also compile epidemiological information on malaria periodically together with recommendations for their outbound travellers. The Summary is compiled based on the epidemiological information as well as malaria prevention measures recommended by the WHO and the above-mentioned health authorities.

6. While the information on malaria risk published by the health authorities most often concurs, there may be different levels of details and occasional discrepancies among various sources. To allow for a better assessment of the risks, details of such discrepancies are described in the Summary. In general, in countries and areas with malaria risk, the risk is lower in areas at altitudes greater than 2,000 metres (m) as well as in well-developed urban areas.

7. The majority of malaria infections can be prevented by avoiding mosquito bites and taking malaria chemoprophylaxis as appropriate. The WHO continues to state that *P. falciparum* resistance to chloroquine is nearly universal in the latest version of its guideline. The WHO, CDC and PHAC recommend chemoprophylaxis by atovaquone-proguanil, doxycycline or mefloquine for all countries and areas with reported chloroquine-resistant malaria. The CDC also

recommends use of tafenoquine in adults without glucose-6-phosphate dehydrogenase (G6PD) deficiency for countries and areas with reported chloroquine-resistant malaria. Similarly, PHE recommends atovaquone-proguanil, doxycycline or mefloquine for travellers visiting areas with high risk of chloroquine resistance, but chloroquine plus proguanil can be used for travellers visiting areas with little chloroquine resistance. The local reference on malaria chemoprophylaxis for clinicians in Hong Kong is available from the “Guidelines on Malaria Chemoprophylaxis for Travellers” which can be accessed at the webpage of SCVBD on the CHP website (<https://www.chp.gov.hk/en/static/24009.html>).

8. In order to better reflect the current epidemiology and recommendations, a set of risk and recommendation categories was developed and adopted in the Summary. A total of five risk categories and their respective recommendations on malaria prevention measures are defined as outlined in **Annex 2**. **Annex 3** shows the details of the respective risk and recommendation categories for each country or area; additional risk descriptions together with discrepancies of risk information from different sources are provided to allow for a better understanding and risk assessment of the situation. **Annex 4** shows details of countries that have major updates in their risk description without changes in risk category or recommendation. **Annex 5** summarises the risk and recommendation profiles of the countries or areas in the six WHO regions.

9. The global situation is continuously evolving with possible changes of the risk situation of countries and areas from time to time. Healthcare professionals are advised to visit websites of the WHO and relevant health authorities for the most recent updates as and when necessary.

Updates on global situation

10. According to the WHO, there were an estimated 241 million malaria cases worldwide in 2020, an increase of 14 million compared with 2019.¹ The number of deaths from malaria in 2020 was estimated to be 627,000, as compared to 558,000 in 2019.¹ In 2020, 96% of all malaria deaths occurred in the WHO African Region, and children aged under 5 years accounted for 77% of total malaria deaths.¹

11. Two countries were noted by the WHO to have experienced a malaria outbreak in 2020. Nicaragua in the WHO region of the Americas experienced an outbreak resulting in a shortage of rapid diagnostic tests and more than doubling of estimated case incidence between 2015 and 2020, and Timor-Leste in the WHO region of South-East Asia experienced a small outbreak in 2020 with three indigenous cases reported after reporting zero indigenous cases in 2018 and 2019.¹

Summary of countries and areas with changes in risk category and recommendation

12. Updates on the risk of malaria in individual countries and areas are detailed as follows:

Since October 2019, 10 countries and areas had their malaria risk categories and recommendations revised: Africa - Algeria; The Americas - Argentina, El Salvador and Paraguay; Europe - Cyprus, Russia and Uzbekistan; South-East Asia - Sri Lanka; and Western Pacific - Mainland China and Singapore.

Country/Area	Recommendation	Change in Risk Category
African		
Algeria	WHO certified Algeria as malaria-free in 2019, and CDC, PHAC and PHE also reported no malaria risk.	2 → 1
The Americas		
Argentina	WHO certified Argentina as malaria-free in 2019, and CDC, PHAC and PHE also reported no malaria risk.	2 → 1
El Salvador	WHO certified El Salvador as malaria-free in 2021.	2 → 1
Paraguay	WHO certified Paraguay as malaria-free in 2018, and CDC, PHAC and PHE also reported no malaria risk.	2 → 1
Europe		
Cyprus	WHO certified Cyprus as malaria-free in 1967. Previously remarked by PHAC that there were some cases	2 → 1

	reported in tourists visiting Esentepe (northern part of the country) in 2017. Currently, all four health authorities reported no malaria risk.	
Russia	Previously noted by WHO to have very limited risk due exclusively to <i>P. vivax</i> in areas under the influence of intense migration from southern countries of the Commonwealth of Independent States. Currently, all four health authorities reported no malaria risk.	2 → 1
Uzbekistan	WHO certified Uzbekistan as malaria-free in 2018, and CDC, PHAC and PHE also reported no malaria risk.	2 → 1
South-East Asia		
Sri Lanka	WHO certified Sri Lanka as malaria-free in 2016. Previously stated by PHE that there was low risk in the area north of Vavuniya and recommended mosquito bite prevention. Currently all four health authorities reported no malaria risk.	2 → 1
Western Pacific		
Mainland China	WHO certified Mainland China as malaria-free in 2021.	2 → 1
Singapore	WHO certified Singapore as malaria-free in 1982. Currently all four health authorities reported no malaria risk.	2 → 1

Other updates for countries and areas without change in risk category and recommendation

13. A total of 18 countries and areas distributed in all six WHO Regions have major updates in the risk description regarding geographical distribution and predominant species. Nonetheless, there is no change in their risk categories and recommendations. Details can be found in **Annex 4**.

Limitations and disclaimer

14. The information presented in the Summary is gathered from the following reports and websites:

A. World Health Organisation (WHO)

(i) WHO. Vaccination requirements and recommendations for international travellers; and malaria situation per country – 2021 edition (updated on 26 May 2021). Available at:

<https://www.who.int/publications/m/item/vaccination-requirements-and-recommendations-for-international-travellers-and-malaria-situation-per-country-2021-edition>, accessed 25 May 2022.

(ii) WHO. Countries and territories certified malaria-free by WHO (updated on 30 June 2021). Available at:

<https://www.who.int/teams/global-malaria-programme/elimination/countries-and-territories-certified-malaria-free-by-who>, accessed 25 May 2022.

B. United States

Centers for Disease Control and Prevention (CDC). Health Information for International Travel 2020 – The Yellow Book. Chapter 2 Preparing International Travelers (updated on 13 December 2021). Available at:

<https://wwwnc.cdc.gov/travel/yellowbook/2020/preparing-international-travelers/yellow-fever-vaccine-and-malaria-prophylaxis-information-by-country>, accessed 25 May 2022.

C. Canada

Public Health Agency of Canada (PHAC). Canadian Recommendations for the Prevention and Treatment of Malaria. Appendix I: Malaria Risk and Recommended Chemoprophylaxis by Geographic Area (updated on 1 October 2020). Available at:

<https://www.canada.ca/en/public-health/services/catmat/appendix->

[1-malaria-risk-recommended-chemoprophylaxis-geographic-area.html](#), accessed 25 May 2022.

D. United Kingdom

Public Health England (PHE). Malaria prevention guidelines for travellers from the UK (updated on 9 June 2021). Available at: <https://www.gov.uk/government/publications/malaria-prevention-guidelines-for-travellers-from-the-uk>, accessed 25 May 2022.

(i) National Travel Health Network and Centre (NaTHNaC). TravelHealthPro Website [commissioned by the Public Health England]. Available at: <https://travelhealthpro.org.uk/countries>, accessed 25 May 2022.

15. Disease situation may change rapidly over time. Moreover, under-reporting and delayed reporting of the disease in various countries or areas may affect the timeliness of malaria risk assessment. Healthcare professionals are reminded to refer to the latest information from relevant health authorities for the most updated situation when necessary.

Annex 1: Statistics on Malaria Cases Recorded in Hong Kong from 2012 – 2021

Annex 2: Key to the Global Malaria Risk Summary

Annex 3: Global Malaria Risk Summary (as of May 2022)

Annex 4: Countries / areas with Major Updates in Risk Description without Change in Risk Categories and Recommendations (as of May 2022)

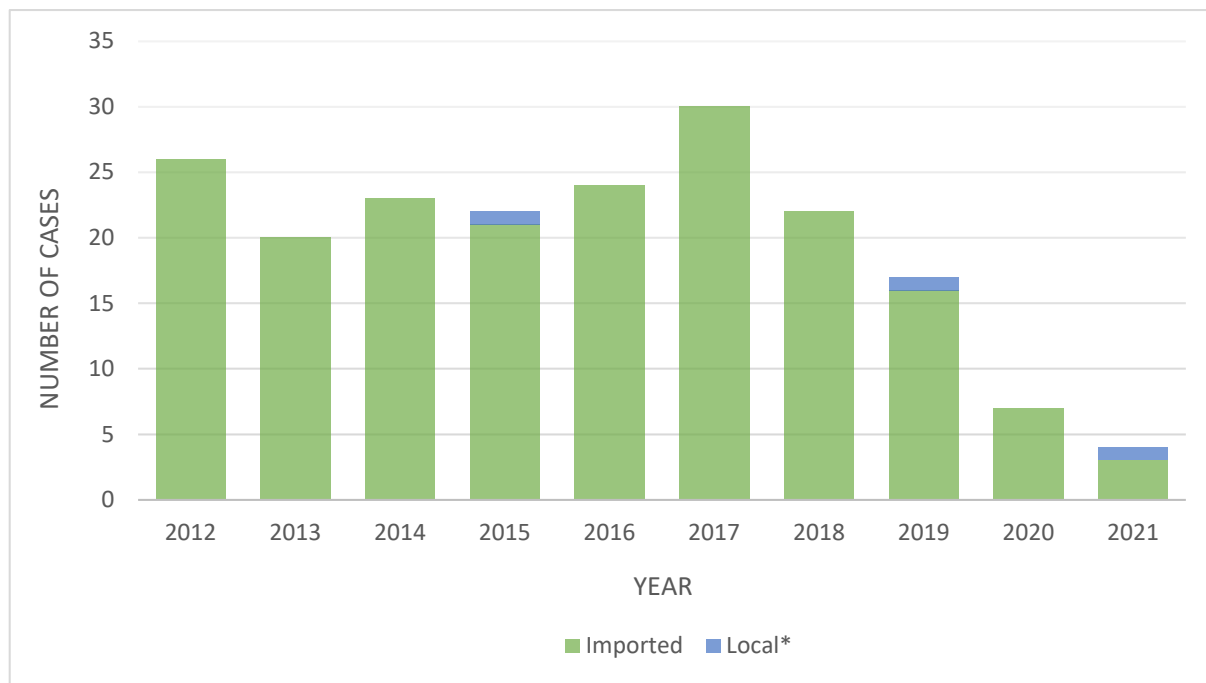
Annex 5: Risk Profile Summary

Centre for Health Protection

May 2022

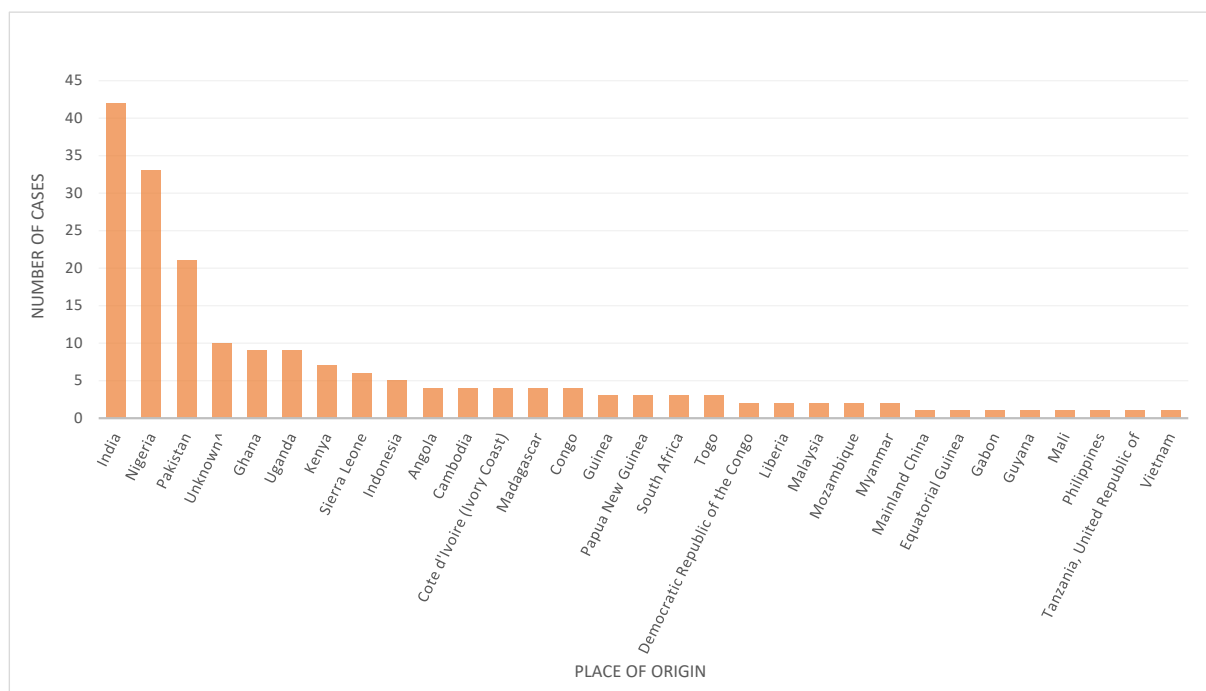
Statistics on Malaria Cases Recorded in Hong Kong from 2012 – 2021

Figure 1: Number and Classification of Malaria Cases recorded by CHP



**All three of them were classified as local (recrudescence) cases*

Figure 2: Place of Origin of Imported Malaria Cases recorded by CHP



^Individuals had a travel history to more than one country/area during incubation period

Key to the Global Malaria Risk Summary

Risk Category	Risk Description	Recommendation Category	Recommendation Description
1	No malaria risk (as reported by WHO, CDC, PHAC and PHE)	I	General precaution during travel
2	Malaria risk reported to be very limited	II	Malaria prevention may be required <ul style="list-style-type: none"> ➤ Advise to undertake mosquito bite prevention ➤ Obtain update on latest epidemiology
3	Risk of chloroquine-sensitive malaria only <i>3A: Risk of malaria exists in the whole administrative area</i> <i>3B: Risk of malaria exists in certain areas</i>	III	Malaria prevention recommended <ul style="list-style-type: none"> ➤ Advise to undertake mosquito bite prevention ➤ When travelling to at-risk areas, consider chemoprophylaxis using chloroquine
4	Chloroquine-resistant malaria have been reported <i>4A: Risk of malaria exists in the whole administrative area</i> <i>4B: Risk of malaria exists in certain areas</i>	IV	Malaria prevention recommended <ul style="list-style-type: none"> ➤ Advise to undertake mosquito bite prevention ➤ When travelling to areas at risk of chloroquine-resistant malaria, consider chemoprophylaxis using atovaquone/proguanil, doxycycline, or mefloquine ➤ When travelling to areas at risk of chloroquine-sensitive malaria, consider chemoprophylaxis using chloroquine
5	Malaria resistant to both chloroquine and mefloquine have been reported <i>5A: Risk of malaria exists in the whole administrative area</i> <i>5B: Risk of malaria exists in certain areas</i>	V	Malaria prevention recommended <ul style="list-style-type: none"> ➤ Advise to undertake mosquito bite prevention ➤ When travelling to areas at risk of mefloquine-resistant malaria, consider chemoprophylaxis using atovaquone/proguanil or doxycycline, BUT NOT mefloquine ➤ When travelling to areas at risk of chloroquine-resistant malaria, consider chemoprophylaxis using atovaquone/proguanil, doxycycline, or mefloquine

Global Malaria Risk Summary (as of May 2022)

Country/Area	Risk Category	Risk Description	Recommendation Category
African			
Algeria	1	WHO certified Algeria as malaria-free in 2019. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Angola	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV
Benin	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV
Botswana	4B	Malaria risk predominantly due to <i>P. falciparum</i> exists from November to June. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: Central District (Bobirwa, Boteti, Mahalapaye, Serowe Palapye, Tutume subdistricts), Chobe District (including Chobe National Park), Ghanzi District, Ngamiland District (including Okavango Delta area), North-East District (including Francistown) and Kweneng East District. - Very low risk: southern half of the country. - No risk: city of Gaborone.	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Burkina Faso	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV
Burundi	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV
Cabo Verde (Cape Verde)	2	Limited malaria risk predominantly due to <i>P. falciparum</i> exists from August to November. <i>P. falciparum</i> resistance to chloroquine has been reported. No indigenous cases have been reported since 2018. <i>Geographical distribution:</i> - Very low risk: Santiago Island and Boa Vista Island.	II
Cameroon	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV
Central African Republic	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV
Chad	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Comoros	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV
Congo	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV
Côte d'Ivoire (Ivory Coast)	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV
Democratic Republic of the Congo	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV
Equatorial Guinea	4A	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV
Eritrea	4B	Malaria risk due to <i>P. falciparum</i> and <i>P. vivax</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas below 2,200 m. - No risk: city of Asmara.	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Ethiopia	4B	<p>Malaria risk due to <i>P. falciparum</i> (60–70%), <i>P. vivax</i> (30–40%) and rarely <i>P. malariae</i> and <i>P. ovale</i> exists throughout the year.</p> <p><i>P. falciparum</i> and <i>P. vivax</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas below 2,500 m. - No risk: city of Addis Ababa. 	IV
Gabon	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Gambia	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Ghana	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Guinea	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Guinea-Bissau	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Kenya	4B	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas below 2,500 m. - Low risk: city of Nairobi, and the highlands (above 2,500 m) of Central, Eastern, Nyanza, Rift Valley and Western provinces. 	IV
Lesotho	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Liberia	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Madagascar	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. - High risk: coastal areas. - Very low risk: rare cases in the city of Antananarivo have been reported. 	IV
Malawi	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Mali	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Mauritania	4B	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: most of the country; Adrar and Inchiri during the rainy season from July to October. - No risk: northern provinces of Dakhlet-Nouadhibou and Tiris-Zemour. 	IV
Mauritius	1	<p>WHO certified Mauritius as malaria-free in 1973.</p> <p>There is no malaria risk as reported by WHO, CDC, PHAC and PHE.</p>	I
Mayotte (France)	4A	<p>Low malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p>There is significant reduction in the malaria burden with the island transitioning into the elimination phase.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Mozambique	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i>, exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Namibia	4B	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: regions of Ohangwena, Omaheke, Omusati, Oshana, Oshikoto and Otjozondjupa from November to June; year-round along the Kunene river in Kunene Region (including Etosha National Park), Zambesi river in Zambesi Region, Okavango river in Kavango regions (West and East) and the Caprivi Strip. - Very low risk: the rest of the country. - No risk: city of Windhoek. 	IV
Niger	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Nigeria	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Rwanda	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Sao Tome and Principe	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Senegal	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. - Low risk: central western regions from January to June. 	IV
Seychelles	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Sierra Leone	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
South Africa	4B	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: low altitude areas of Mpumalanga Province (Ehlanzeni District, Kruger National Park), Limpopo Province (Mopani, Vhembe and Waterberg districts) and north-eastern KwaZulu-Natal Province (Umkhanyakude District), with highest risk from September to May. - Very low risk: North West Province (adjacent to Molopo river) and Northern Cape Province (adjacent to Orange river). 	IV
South Sudan	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Swaziland (Eswatini)	4B	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: northern and eastern areas bordering Mozambique and South Africa, including all of the Lubombo District (mainly Big Bend, Mhlume, Simunye and Tshaneni) and the eastern half of Hhohho, Manzini and Shiselweni districts, with highest risk from November to May. - Very low risk: the rest of the country. 	IV
Tanzania, United Republic of	4B	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas below 1,800 m, including the city of Zanzibar. 	IV
Togo	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Uganda	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV
Zambia	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Zimbabwe	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas below 1,200 m from November to June, and Zambezi Valley (including Victoria Falls) throughout the year. - Very low risk: cities of Bulawayo and Harare. 	IV
The Americas			
Anguilla (UK)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Antigua and Barbuda	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Argentina	1	WHO certified Argentina as malaria-free in 2019. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Bahamas	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Barbados	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Belize	2	<p>Malaria risk predominantly due to <i>P. vivax</i> exists throughout the year.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: some areas of Stan Creek. - Low risk: the rest of the country. - No risk: Belize City and islands frequented by tourists. 	II
Bermuda (UK)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Bolivia (Plurinational State of)	4B	<p>Malaria risk due almost exclusively to <i>P. vivax</i> exists throughout the year. Transmission of <i>P. falciparum</i> occurs in the northern departments.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas below 2,500 m - High risk: northern departments of Beni and Pando, especially in the localities of Riberalta, Guayaramerín and Sena. - No risk: city of La Paz. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Brazil	4B	<p>Malaria risk due to <i>P. vivax</i> (84.3%), <i>P. falciparum</i> and mixed infections (15.7%) exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: most forested areas below 900 m within the nine states of the Amazon region [Acre, Amapá, Amazonas, Maranhão, Mato Grosso (northern part), Pará (except Belém City), Rondônia, Roraima and Tocantins (western part)]; periphery of large cities such as Boa Vista, Macapá, Marabá, Rio Branco and Santarém. - Very low risk: states outside the administrative region of Amazonas. - No risk: cities of Brasília, Rio de Janeiro and São Paulo, and Iguassu Falls. - Transmission intensity varies from one municipality to another, and is higher in jungle-mining areas, agricultural settlements, indigenous areas and some peripheral urban areas of Cruzeiro do Sul, Manaus and Pôrto Velho. - Residual risk of <i>P. vivax</i> transmission in the Atlantic forest areas of the states of São Paulo, Minas Gerais, Rio de Janeiro and Espírito Santo. 	IV
British Virgin Islands	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Canada	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Cayman Islands (UK)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Chile	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Colombia	4B	<p>Malaria risk due to <i>P. falciparum</i> (50%) and <i>P. vivax</i> (50%) exists throughout the year.</p> <p>Chloroquine resistance has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas below 1,700m. - High risk: some municipalities of the departments of Antioquia, Bolívar, Cauca, Chocó, Córdoba, La Guajira, Nariño and Risaralda. - Low risk: some municipalities of Amazonas, Caqueta, Guaviare, Guainía, Meta, Norte de Santander, Putumayo, Vaupés and Vichada, and along the Caribbean coast. - No risk: cities of Baranquilla, Bogotá, Cartagena and Medellín, and San Andrés and Providencia islands. 	IV
Costa Rica	2	<p>Very low malaria risk was historically due almost exclusively to <i>P. vivax</i>.</p> <p>There is negligible or no risk of malaria transmission in the country.</p> <p>There is no evidence of <i>P. falciparum</i> resistance to any antimalarial drug.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Some risk in Alajuela Province near the border with Nicaragua. - Rare local cases have been reported in Matina Canton in Limón Province, Sarapiquí Canton in Heredia Province, and Pital District in San Carlos Canton in Alajuela Province. - No risk: city of Limon. 	II
Cuba	1	<p>WHO certified Cuba as malaria-free in 1973.</p> <p>There is no malaria risk as reported by WHO, CDC, PHAC and PHE.</p>	I
Dominica	1	<p>WHO certified Dominica as malaria-free in 1966.</p> <p>There is no malaria risk as reported by WHO, CDC, PHAC and PHE.</p>	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Dominican Republic	3B	<p>Malaria risk due exclusively to <i>P. falciparum</i> exists throughout the year and is higher during the rainy season from May to October.</p> <p>There is no evidence of <i>P. falciparum</i> resistance to any antimalarial drug.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: provinces of Dajabón, Elias Pina, San Juan, La Altagracia, San Juan, Santo Domingo, San Cristóbal and the Distrito Nacional. - Very low risk: resort areas of Romana and Samaná, and cities of Santiago and Puerto Plata. 	III
Ecuador; Including the Galápagos Islands	4B	<p>Malaria risk due to <i>P. vivax</i> (67%) and <i>P. falciparum</i> (33%) exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas below 1,500 m and Amazon basin. - Moderate risk: coastal provinces. - Low risk: Quito and in provinces that are part of the Inter-Andean or Sierra region. - No risk: cities of Guayaquil and Cuenca, and other cities and villages in the Andean highlands or on the Galápagos Islands. - Risk due to <i>P. vivax</i> is present in some provinces of the country, predominantly in the Amazon region, especially the provinces of Morona Santiago, Pastaza, Orellana and Sucumbíos. - Risk due to <i>P. falciparum</i> is present in some provinces of the country with predominance on the coast, especially the province of Esmeraldas as well as in the Amazon region, especially the provinces of Pastaza and Morano Santiago. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
El Salvador	1	WHO certified El Salvador as malaria-free in 2021.	I
French Guiana	4A	<p>High malaria risk due to <i>P. vivax</i> (55%) and <i>P. falciparum</i> (45%) exists throughout the year.</p> <p>Multidrug-resistant <i>P. falciparum</i> has been reported in areas influenced by Brazilian migration.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - High risk: nine municipalities of the territory bordering Brazil (Oiapoque river valley) and Suriname (Maroni river valley). - Low risk: city of Cayenne and Devil's Island (Ile du Diable). - Very low risk: other thirteen municipalities. 	IV
Grenada	1	<p>WHO certified Grenada as malaria-free in 1962.</p> <p>There is no malaria risk as reported by WHO, CDC, PHAC and PHE.</p>	I
Guadeloupe (France); Saint Barthelemy (France); Saint Martin (France)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Guatemala	3B	<p>Malaria risk due almost exclusively to <i>P. vivax</i> exists throughout the year.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas below 1,500 m. - High risk: departments of Escuintla (especially in the municipalities of Gomera, Masagua, Santa Lucia Cotzumalguapa and Tiquisate) and Alta Verapaz (in the municipalities of Telemán, Panzós and La Tinta). - Moderate risk: departments of Suchitepéquez, Retalhuleu and Izabal. - Low risk: the rest of the departments (Chiquimula, Zacapa, Baja Verapaz, San Marcos, Peten, Jutiapa, Jalapa, El Progreso, Santa Rosa, Guatemala, Chimaltenango, Huehuetenango and Quiche). - No risk: Guatemala City, Antigua, Lake Atitlán and areas above 1,500 m. 	III
Guyana	4B	<p>High malaria risk due to <i>P. falciparum</i> (60%), <i>P. vivax</i> (40%) exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - High risk: Regions 1, 7, 8 and parts of 9. - Very low risk: Regions 2, 3, 10 and parts of 6. - No risk: Regions 4 and 5. - Rare cases have occurred in the cities of Amsterdam and Georgetown. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Haiti	3A	<p>Malaria risk due exclusively to <i>P. falciparum</i> exists throughout the year.</p> <p>No falciparum resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas, especially in the southern departments including Grand'Anse, Nippes and Sud-Est. 	III
Honduras	3B	<p>Malaria risk due to <i>P. vivax</i> (79%), <i>P. falciparum</i> (20%) and mixed infections (~0.8%) exists throughout the year.</p> <p>No <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Risk due to <i>P. vivax</i> is high in the departments of Colon and Gracias a Dios, and moderate in Atlántida, El Paraiso, Olancho and Yoro. - Risk due to <i>P. falciparum</i> is high in Colon and Gracias a Dios. - No risk: San Pedro Sula and Tegucigalpa. 	III
Jamaica	1	<p>WHO certified Jamaica as malaria-free in 1966.</p> <p>There is no malaria risk as reported by WHO, CDC, PHAC and PHE.</p>	I
Martinique (France)	1	<p>There is no malaria risk as reported by WHO, CDC, PHAC and PHE.</p>	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Mexico	3B	<p>Malaria risk due almost exclusively to <i>P. vivax</i> exists intermittently throughout the year.</p> <p>No <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Low risk: Chiapas State (Costa) - Very low risk: the states of Campeche, Chihuahua, Durango, Jalisco, Nayarit, Quintana Roo, San Luis Potosi, Sinaloa, Sonora and Tabasco. - No risk: the major resort areas on the coasts, including the city of Acapulco, or along the Mayan Rivera, including the cities of Cancún, Cozumel and Playa del Carmen. 	III
Montserrat (UK)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Netherlands Antilles (Bonaire, Curaçao, Saba, St. Eustasius, and St. Maarten)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Nicaragua	3B	<p>Malaria risk due to <i>P. vivax</i> (79.2%) and <i>P. falciparum</i> (20.8%) exists throughout the year.</p> <p>No <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Risk due to <i>P. falciparum</i> is high mainly in Región Autónoma del Atlántico Norte, specifically in the municipalities of Rosita, Siuna, Bonanza, Puerto Cabezas and Waspán. - Sporadic transmission also reported in Boaca, Chinandega, Esteli, Jinoteca, León, Managua, Matagalpa, Nueva Segovia and Región Autónoma Atlántico Sur. - Low risk: the rest of the country. - No risk: Managua city. 	III

Country/Area	Risk Category	Risk Description	Recommendation Category
Panama	4B	<p>Malaria risk predominantly due to <i>P. vivax</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: provinces of Bocas del Toro, Chiriquí, Colón, Darién, Panamá and Veraguas, and indigenous provinces of Emberá and Kuna Yala. - Low risk: east of the Canal Zone - Very low risk: province of Panamá Oeste, Panama City and in the Canal Zone. - Chloroquine-sensitive malaria occurs in Ngäbe-Buglé. 	IV
Paraguay	1	<p>WHO certified Paraguay as malaria-free in 2018. No autochthonous cases have been reported in 2012.</p> <p>There is no malaria risk as reported by WHO, CDC, PHAC and PHE.</p>	I
Peru	4B	<p>Malaria risk due to <i>P. vivax</i> (80%) and <i>P. falciparum</i> (20%) exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: rural areas in inter-Andean valleys below 2,500 m. - 12 departments in the country reported indigenous cases with 90% of cases concentrated in the department of Loreto. - No risk: Lima Province (including the city of Lima), the cities of Arequipa, Ica, Moquegua, Nazca, Puno, Tacna, the coastal region south of Chiclayo, and the highland tourist areas (Cusco, Machu Picchu and Lake Titicaca). 	IV
Puerto Rico (US)	1	<p>There is no malaria risk as reported by WHO, CDC, PHAC and PHE.</p>	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Saint Kitts and Nevis (Saint Christopher and Nevis) (UK)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Saint Lucia	1	WHO certified Saint Lucia as malaria-free in 1962. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Saint Vincent and the Grenadines	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Suriname	5B	Malaria risk due to <i>P. falciparum</i> (40%), <i>P. vivax</i> (58%) and mixed infections (2%) exists throughout the year but continues to decrease in recent years. <i>P. falciparum</i> resistance to chloroquine and mefloquine has been reported. Some decline in quinine sensitivity has also been reported. <i>Geographical distribution:</i> - At risk: the interior of the country beyond the coastal savannah area, with the highest risk mainly along the eastern border primarily in Sipaliwini District and in the gold-mining areas. - No risk: Paramaribo City and the other seven coastal districts.	V
Trinidad and Tobago	1	WHO certified Trinidad and Tobago as malaria-free in 1965. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Turks and Caicos (UK)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
US	1	WHO certified United States of America as malaria-free in 1970. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Uruguay	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Venezuela (Bolivarian Republic of)	4B	<p>Malaria risk due to <i>P. vivax</i> (74.6 %) and <i>P. falciparum</i> (25.4 %) exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas below 1,700 m, and areas south of and including the Orinoco river and Angel Falls. - High risk: some areas of Amazonas (Alto Orinoco, Atabapo, Atures, Autana and Manapiare), Bolívar (Angostura, Cedeño, El Callao, Gran Sabana, Heres, Piar, Rocio and Sifontes), Delta Amacuro and Sucre (Benítez, Bermúdez, Cajigal and Arismendi) states; the risk of <i>P. falciparum</i> malaria is mostly restricted to these areas. - Moderate risk: Zulia State. - Low risk: Anzoátegui and Monagas states. - No risk: Caracas city and Margarita Island. 	IV
Eastern Mediterranean			
Afghanistan	4B	<p>Malaria risk due to <i>P. falciparum</i> and <i>P. vivax</i> exists from April to December.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas below 2,500 m. - Low risk: central Kabul and Kandahar. 	IV
Bahrain	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Djibouti	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Egypt	2	Very limited malaria risk due to <i>P. falciparum</i> and <i>P. vivax</i> may exist from June to October. No indigenous cases have been reported since 1998. <i>Geographical distribution:</i> - At risk: El Faiyûm Governorate.	II
Iran	4B	Malaria risk due to <i>P. vivax</i> (93%) and very limited risk due to <i>P. falciparum</i> (7%) exists from March to November. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: rural areas of Fars Province, southern parts of Sistan and Baluchestan Province, tropical parts of Hormozgan and Kerman Provinces, along the Azerbaijan border in Ardabil and near the Turkmenistan border in North Khorasan.	IV
Iraq	2	Limited malaria risk due exclusively to <i>P. vivax</i> may exist from May to November. No indigenous cases have been reported since 2009. <i>Geographical distribution:</i> - At risk: areas in the north below 1,500 m (Duhok, Erbil and Sulaimaniya provinces).	II
Jordan	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Kuwait	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Lebanon	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Libya	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Morocco	1	WHO certified Morocco as malaria-free in 2010. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Oman	2	<p>There is sporadic transmission of malaria due to <i>P. falciparum</i> and <i>P. vivax</i>, subsequent to international importation.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - In 2010, local outbreaks of <i>P. falciparum</i> and <i>P. vivax</i> were reported in Ash Sharqiyah North Governorate. - Local cases were also reported in 2011 and 2012. 	II
Pakistan	4B	<p>Malaria risk due to <i>P. falciparum</i> and <i>P. vivax</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas (including all cities) below 2,500 m, especially in rural areas from July to December. 	IV
Qatar	1	<p>There is no malaria risk as reported by WHO, CDC, PHAC and PHE.</p>	I
Saudi Arabia	4B	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year, mainly from September to January.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p>In pre-elimination phase.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: Asir and Jizan emirates by the border with Yemen (except in the high-altitude areas above 2,000 m of Asir Province). - No risk: cities of Jeddah, Mecca, Medina, Riyadh and Ta'if. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Somalia	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. - High risk: central and southern parts of the country. - Low risk: northern parts of the country (seasonal risk). 	IV
Sudan	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. - High risk: central and southern parts of the country. - Low risk: northern parts of the country (seasonal risk). - Very low risk: Red Sea coast and Khartoum. 	IV
Syrian Arab Republic (Syria)	2	<p>Very limited malaria risk exclusively due to <i>P. vivax</i> may exist from May to October.</p> <p>No indigenous cases have been reported since 2005, but the reporting system has been disrupted since 2010.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: in foci along the northern border, especially in the rural areas of El Hasaka Governorate. 	II
Tunisia	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
United Arab Emirates	1	<p>WHO certified United Arab Emirates as malaria-free in 2007.</p> <p>There is no malaria risk as reported by WHO, CDC, PHAC and PHE.</p>	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Yemen	4B	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year, mainly from September to February. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas below 2,000 m. - Very limited risk: Socotra Island. - No risk: Sana'a city.	IV
European			
Albania	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Andorra	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Armenia	1	WHO certified Armenia as malaria-free in 2011. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Austria	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Azerbaijan	2	Malaria risk exclusively due to <i>P. vivax</i> exists from June to October. No locally-acquired cases have been reported since 2013. <i>Geographical distribution:</i> - At risk: lowland areas mainly in the area between the Kura and the Arax rivers. - No risk: Baku City.	II
Belarus	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Belgium	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Bosnia and Herzegovina	1	WHO certified Bosnia and Herzegovina as malaria-free in 1973. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Bulgaria	1	WHO certified Bulgaria as malaria-free in 1965. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Croatia	1	WHO certified Croatia as malaria-free in 1973. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Cyprus	1	WHO certified Cyprus as malaria-free in 1967. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Czech Republic	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Denmark	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Estonia	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Finland	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
France	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Georgia	2	Limited malaria risk due exclusively to <i>P. vivax</i> may exist locally from June to October. No locally-acquired cases have been reported since 2010. <i>Geographical distribution:</i> - Very low risk: eastern part of the country bordering Azerbaijan and the rural southeast.	II
Germany	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Greece	2	Very limited malaria risk due exclusively to <i>P. vivax</i> may exist from May to November. <i>Geographical distribution:</i> - Very low risk: agricultural areas, associated with imported cases. - No risk: tourist areas.	II
Hungary	1	WHO certified Hungary as malaria-free in 1964. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Iceland	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Ireland	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Israel	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Italy	1	WHO certified Italy as malaria-free in 1970. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Kazakhstan	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Kyrgyzstan	1	WHO certified Kyrgyzstan as malaria-free in 2016. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Latvia	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Lithuania	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Luxembourg	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Malta	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Monaco	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Montenegro	1	WHO certified Montenegro as malaria-free in 1973. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Netherlands	1	WHO certified Netherlands as malaria-free in 1970. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
North Macedonia	1	WHO certified North Macedonia as malaria-free in 1973. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Norway	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Poland	1	WHO certified Poland as malaria-free in 1967. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Portugal	1	WHO certified Portugal as malaria-free in 1973. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Republic of Moldova	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Romania	1	WHO certified Romania as malaria-free in 1967. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Russia	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
San Marino	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Serbia	1	WHO certified Serbia as malaria-free in 1973. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Slovakia	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Slovenia	1	WHO certified Slovenia as malaria-free in 1973. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Spain	1	WHO certified Spain as malaria-free in 1964. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Sweden	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Switzerland	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Tajikistan	2	<p>Previous malaria risk was predominantly due to <i>P. vivax</i> existed from June to October.</p> <p>No indigenous cases of <i>P. falciparum</i> and <i>P. vivax</i> have been reported since 2009 and 2015, respectively.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: areas below 2,000 m, particularly in southern areas (Khatlon Region) and in some central (Dushanbe), western (Gorno-Badakhshan Autonomous Region) and northern (Leninabad Region) areas. - No risk: areas above 2,000 m. 	II
Turkey	2	No locally-acquired cases have been reported since 2010.	II

Country/Area	Risk Category	Risk Description	Recommendation Category
Turkmenistan	1	WHO certified Turkmenistan as malaria-free in 2010. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Ukraine	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
UK (with Channel Islands and Isle of Man)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Uzbekistan	1	WHO certified Uzbekistan as malaria-free in 2018. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
South-East Asia			
Bangladesh	4B	<p>Malaria risk due to <i>P. falciparum</i> (90%), <i>P. vivax</i> (10%) and rarely <i>P. malariae</i> exists throughout the year with a peak during the monsoon season from May to October.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Transmission occurs in 13 of 64 districts in both rural and urban areas. - High risk: Chittagong Hill Tract districts (Bandarban, Rangamati and Khagrachari), Chattogram District and Cox's Bazaar District. - Low risk: districts of Hobigonj, Kurigram, Moulvibazar, Mymensingh, Netrakona, Sherpur, Sunamgonj and Sylhet. - No risk: most parts of the country, including Dhaka City. 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Bhutan	4B	<p>Malaria risk due to <i>P. falciparum</i> (70%) and <i>P. vivax</i> (30%) exists. <i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: rural areas below 1,700 m in the seven southern belt districts of the country (Chukha, Dagana, Pemagatshel, Samdrup Jongkhar, Samtse, Sarpang and Zhemgang). - Very low risk: rare seasonal cases occur from May to September in Ha, Lhuentse, Monggar, Punakha, Trashigang, Trongsa, Tsirang, Yangtse and Wangdu - No risk: districts of Bumthang, Gasa, Paro and Thimphu. 	IV
Democratic People's Republic of Korea (North Korea)	2	<p>Limited malaria risk due exclusively to <i>P. vivax</i> exists.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: some southern areas of the country. 	II

Country/Area	Risk Category	Risk Description	Recommendation Category
India	4B	<p>Malaria risk due to <i>P. falciparum</i> and <i>P. vivax</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas below 2,000 m, including the cities of Bombay (Mumbai) and Delhi - High risk: northeastern and central states which have large forest, hilly and tribal areas, including Odisha, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra and some north-eastern states such as Tripura, Meghalaya and Mizoram. - Low risk: central urban areas of Delhi, Argra, Mumbai, Nagpur, Nasik, Pune, Kolkata and Bangalore. - No risk: Lakshadweep islands and areas above 2,000 m in parts of Himachal Pradesh, Jammu and Kashmir, and Sikkim. 	IV
Indonesia	4B	<p>Malaria risk exists throughout the year.</p> <p><i>P. falciparum</i> and <i>P. vivax</i> resistance to chloroquine has been reported.</p> <p>Human <i>P. knowlesi</i> infection has been reported in the province of Kalimantan.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: most areas of the five eastern provinces of East Nusa Tenggara, Maluku, North Maluku, Papua and West Papua and in the rural areas of Kalimantan (Borneo), Nusa Tenggara Barat (including the island of Lombok), Sulawesi and Sumatra. - Low risk: rural areas of Java, including Pangandaran, Sukalumi and Ujung Kulong. - No risk: cities of Jakarta and Ubud, resort areas of Bali and Java, Gili Islands and the Thousand Islands (Pulau Seribu). 	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Maldives	1	WHO certified Maldives as malaria-free in 2015. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Myanmar (formerly Burma)	5B	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> and <i>P. vivax</i> resistance to chloroquine has been reported. Mefloquine resistance has been reported in Kayin State and the eastern part of Shan State. Emerging artemisinin resistance is suspected in south-eastern Myanmar. Human <i>P. knowlesi</i> infection has been reported. <i>Geographical distribution:</i> - At risk: all areas below 1,000 m. - Mefloquine-resistant malaria occurs in areas below 1,000 m in the states of Bago, Kachin, Kayah, Kayin, Shan and Tanintharyi. - High risk: remote rural, hilly and forested areas of the country as well as in some coastal areas in Rahkine State. - No risk: areas above 1,000 m and urban areas.	V
Nepal	4B	Malaria risk predominantly due to <i>P. vivax</i> exists mainly from March to October with peaks during the rainy seasons from May to August, and occasional outbreaks of <i>P. falciparum</i> from July to October. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas below 2,000 m. - No risk: Kathmandu and typical Himalayan treks.	IV
Sri Lanka	1	WHO certified Sri Lanka as malaria-free in 2016. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Thailand	5B	<p>Malaria risk exists throughout the year.</p> <p><i>P. falciparum</i> and <i>P. vivax</i> resistance to chloroquine has been reported.</p> <p><i>P. falciparum</i> resistance to mefloquine and quinine has been reported from areas near the borders with Cambodia and Myanmar.</p> <p>Artemisinin resistance has been reported near the border with Myanmar.</p> <p>Human <i>P. knowlesi</i> infection has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: rural, especially forested and hilly, areas of the country, mainly towards the international borders, including the southernmost provinces. - Mefloquine-resistant malaria occurs in provinces that border Myanmar, Cambodia and Laos and in the provinces of Kalasin, Plai Phraya district of Krabi, Nakhon Si Thammarat, Narathiwat, Pattani, Phang Nga (including Phang Nga City), Rayong, Sakon Nakhon, Songkhla, Surat Thani and Yala. - No risk: cities (e.g. Bangkok, Chiang Mai and Pattaya), urban areas, Samui Island and the main tourist resorts of Phuket island. 	V
Timor-Leste (East Timor)	4A	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. - High risk: Oecuse district. 	IV
Western Pacific			
American Samoa (US)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Australia; Including Cocos (Keeling) Islands	1	WHO certified Australia as malaria-free in 1981. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Brunei Darussalam	2	Malaria risk is very low to none. Human <i>P. knowlesi</i> infection has been reported.	II
Cambodia	5B	Malaria risk due to <i>P. falciparum</i> and <i>P. vivax</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. <i>P. falciparum</i> resistance to artesunate, mefloquine, lumefantrine and piperazine has been reported in western Cambodia, extending to the centre of the country. <i>P. vivax</i> resistance to chloroquine has been reported in eastern Cambodia. <i>Geographical distribution:</i> - At risk: all areas, especially forested rural areas. - Mefloquine-resistant malaria occurs in the provinces of Banteay Meanchey, Battambang, Kampot, Koh Kong, Odder Meanchey, Pailin, Preah Vihear, Pursat and Siem Reap bordering Thailand. - Very low risk: Phnom Penh and the temple complex at Angkor Wat.	V
Mainland China	1	WHO certified China as malaria-free in 2021.	I
Cook Islands (New Zealand)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Fiji	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
French Polynesia, includes the island groups of Society Islands (Tahiti, Moorea, and Bora-Bora); Marquesas Islands (Hiva Oa and Ua Huka); and Austral Islands (Tubuai and Rurutu)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Guam (US)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Japan	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Kiribati (formerly Gilbert Islands), includes Tarawa, Tabuaeran (Fanning Island), and Banaba (Ocean Island)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Lao People's Democratic Republic	5B	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine and mefloquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas, except the city of Vientiane. - Mefloquine-resistant malaria occurs along the Laos-Myanmar border in the provinces of Bokeo and Louang Namtha, along the Laos-Thailand border in the provinces of Champasack and Saravan, along the Laos-Cambodia border and along the Laos-Vietnam border. 	V
Malaysia	4B	<p>Malaria risk due to <i>P. falciparum</i>, <i>P. vivax</i>, <i>P. knowlesi</i>, <i>P. malariae</i>, and <i>P. ovale</i> exists only in limited foci throughout the year.</p> <p><i>P. falciparum</i> resistance to chloroquine has been reported.</p> <p>Human <i>P. knowlesi</i> infection has been reported.</p> <p>No indigenous cases have been reported since 2017.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Very low risk: limited foci in the deep hinterland of the states of Sabah and Sarawak and the central areas of Peninsular Malaysia. - No risk: urban, suburban and coastal areas. 	IV
Marshall Islands	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Micronesia (Federated States of), includes: Yap Islands, Pohnpei, Chuuk, and Kosrae	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Mongolia	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Nauru	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
New Caledonia (France)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
New Zealand	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Niue (New Zealand)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Northern Mariana Islands (US) Includes Saipan, Tinian, and Rota Island	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Palau	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Papua New Guinea	4B	Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> and <i>P. vivax</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas below 2,000 m.	IV
Philippines	4B	Very limited malaria risk due to <i>P. falciparum</i> (85%) and <i>P. vivax</i> (15%) exists throughout the year. <i>P. falciparum</i> resistance to chloroquine has been reported. Human <i>P. knowlesi</i> infection has been reported on Palawan Island. <i>Geographical distribution:</i> - At risk: nine remaining endemic provinces (Palawan, Sultan Kudarat, Davao del norte, Maguindanao, Sulu, Mindoro occidental, Tawi-tawi, Cagayan Valley and Davao City). - Very low risk: metropolitan Manila and other urban areas.	IV
Pitcairn Islands (UK)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I

Country/Area	Risk Category	Risk Description	Recommendation Category
Republic of Korea (South Korea)	2	Limited malaria risk due exclusively to <i>P. vivax</i> . <i>Geographical distribution:</i> - At risk: northern parts of Gangwon-do and Gyeonggi-do Provinces and Incheon City (towards the Demilitarized Zone) from March to December.	II
Samoa (formerly Western Samoa)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Singapore	1	WHO certified Singapore as malaria-free in 1982. There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Solomon Islands	4A	Malaria risk predominantly due to <i>P. vivax</i> (70%) and <i>P. falciparum</i> (30%) exists throughout the year. <i>P. falciparum</i> and <i>P. vivax</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas, except a few outlying eastern and southern islets.	IV
Tokelau (New Zealand)	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Tonga	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Tuvalu	1	There is no malaria risk as reported by WHO, CDC, PHAC and PHE.	I
Vanuatu	4A	Low to moderate malaria risk due to <i>P. falciparum</i> (65%) and <i>P. vivax</i> (35%) exists throughout the year. <i>P. falciparum</i> and <i>P. vivax</i> resistance to chloroquine has been reported. <i>Geographical distribution:</i> - At risk: all areas.	IV

Country/Area	Risk Category	Risk Description	Recommendation Category
Vietnam	5B	<p>Malaria risk predominantly due to <i>P. falciparum</i> exists throughout the year. <i>P. falciparum</i> resistance to chloroquine and mefloquine has been reported.</p> <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - At risk: all areas. - Mefloquine-resistant malaria occurs in the southern part of the country in the provinces of Dac Lac, Gia Lai, Khanh Hoa, Kon Tum, Lam Dong, Ninh Thuan, Song Be and Tay Ninh. - No risk: urban centres, the Red River delta, the Mekong delta and the coastal plain areas of central Vietnam. 	V

Countries / areas with Major Updates in Risk Description without Change in Risk Categories and Recommendations (as of May 2022)

Country/Area	Major Updates in Risk Description
African	
Cabo Verde (Cape Verde)	<p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Noted that there have been no indigenous cases since 2018. (CDC, PHAC) - Previously recommended chemoprophylaxis in the capital city of Praia on Santiago Island, and personal protective measures in other areas of Santiago Island. Currently gives a general recommendation of personal protective measures for all areas. (PHAC)
Namibia	<p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Addition of Etosha National Park to at-risk areas requiring chemoprophylaxis. (PHAC)
Swaziland (Eswatini)	<p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Removal of Mbabane as risk-free area. (PHAC)
The Americas	
Colombia	<p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Removal of municipalities with moderate risk category. (WHO) - Addition of Guainía and Norte de Santander to municipalities with lower risk. (WHO) - Addition of La Guajira to and removal of Amazonas, Guainía, Valle del Cauca, Vaupés and Vichada from municipalities with higher risk. (WHO)
Costa Rica	<p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Noted there is some transmission in Alajuela Province near the border with Nicaragua. (CDC)
Dominican Republic	<p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Addition of Distrito Nacional, La Altagracia, San Cristóbal and Santo Domingo to at-risk areas requiring chemoprophylaxis. (WHO, CDC)
Guyana	<p><i>Malaria species frequency:</i></p> <ul style="list-style-type: none"> - <i>P. vivax</i>: changed from 50% to 40%. (CDC) - <i>P. falciparum</i>: changed from 50% to 60%. (CDC) <p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Very low risk regions changed from regions 3-6 to regions 2, 3, 10 and parts of 6. (WHO) - Addition of no risk regions category with regions 4 and 5. (WHO)
Haiti	<p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Remarked that there is risk especially in the southern departments such as Grand'Anse, Nippes and Sud-Est. (WHO)
Peru	<p><i>Geographical distribution:</i></p> <ul style="list-style-type: none"> - Previously noted that there are 45 highest-risk districts where the largest number of cases are concentrated are in the regions of Amazonas, Junin, San Martin and principally Loreto (where 98% of <i>P. falciparum</i> cases are reported). Currently states that 12 departments in the country reported indigenous cases with 90% of cases concentrated in the department of Loreto. (WHO)

East Mediterranean	
Iran	<i>Geographical distribution:</i> - Noted that there have been no indigenous cases since 2017. (CDC)
European	
Azerbaijan	<i>Geographical distribution:</i> - Previously recommended personal protective measures at areas below 1500 m in rural lowlands mainly between the Kura and Arax rivers. Currently reports no transmission in the country. (PHAC)
Georgia	<i>Geographical distribution:</i> - Previously noted limited risk in the eastern areas bordering Azerbaijan. Currently reports no transmission in the country. (PHAC)
Greece	<i>Geographical distribution:</i> - Removal of limited transmission risk in western and central Greece. (PHAC)
Turkey	<i>Geographical distribution:</i> - Previously noted limited risk due exclusively to <i>P. vivax</i> in Mardin Province which borders Syria. Currently reports no transmission in the country. (PHAC)
South-East Asia	
India	<i>Geographical distribution:</i> - Addition of the central urban areas of Delhi, Mumbai, Nagpur, Nasik, Pune and Kolkata to areas with lower risk. (PHAC)
Timor-Leste (East Timor)	<i>Geographical distribution:</i> - Previously noted risk in all areas and recommended chemoprophylaxis. Currently recommends personal protective measures as there is low/no risk through much of the country, with the exception of Oecuse district which would require chemoprophylaxis. (PHAC)
Western Pacific	
Cambodia	<i>Geographical distribution:</i> - Siem Reap was changed from being a risk area to a no risk area. (CDC)
Philippines	<i>Malaria species frequency:</i> - Remark that human <i>P. knowlesi</i> infection has been reported on Palawan Island. (PHAC) <i>Geographical distribution:</i> - Noted very limited risk of transmission and currently recommends mosquito-bite prevention only as opposed to chemoprophylaxis. (WHO; CDC and PHAC continue to recommend chemoprophylaxis for certain areas)

Risk Profile Summary

Table 1: Risk categories of countries and areas in the six WHO Regions

Region	1	2	3A	3B	4A	4B	5A	5B	Total
African	4	1	0	0	34	9	0	0	48
The Americas	28	2	1	5	1	8	0	1	46
Eastern Mediterranean	9	4	0	0	3	5	0	0	21
European	48	5	0	0	0	0	0	0	53
South-East Asia	2	1	0	0	1	5	0	2	11
Western Pacific	24	2	0	0	2	3	0	3	34
Total	115	15	1	5	41	30	0	6	213

Table 2: Recommendation categories of countries and areas in the six WHO Regions

Region	I	II	III	IV	V	Total
African	4	1	0	43	0	48
The Americas	28	2	6	9	1	46
Eastern Mediterranean	9	4	0	8	0	21
European	48	5	0	0	0	53
South-East Asia	2	1	0	6	2	11
Western Pacific	24	2	0	5	3	34
Total	115	15	6	71	6	213

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