



INTERNATIONAL ASSOCIATION
FOR MEDICAL ASSISTANCE
TO TRAVELLERS

IAMAT

World Malaria Risk Chart

(including geographical distribution of principal vectors, geographical distribution of *P. falciparum* malaria, areas where *Plasmodium falciparum* is resistant to chloroquine and guidelines for suppressive medication by country)

Status as at March 15, 2002

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World Malaria Risk Chart

Status as at March 15, 2002

For the description of the disease see IAMAT's publication HOW TO PROTECT YOURSELF AGAINST MALARIA.

Afghanistan	Mab1, 2000, V-XI, A21, A23, P.F. 10%, R5, S2	Côte d'Ivoire	Mabg, I-XII, A7 A8 A11, P.F. 88%, R7, S3	Kenya	Mabc 31, 2500, I-XII, A7 A8, P.F. >85%, R7, S3
Algeria	Mf 2, A19, P.F. <1%, S6	Djibouti	Mab, I-XII, A8, P.F. 98%, R1, S3	Korea, Dem. P. Rep.	Mf 32, P.F. 0%, S6
Angola	Mabg, I-XII, A7 A8, P.F. 90%, R7, S3	Dominican Republic	Mf 16, 400, I-XII, A1, P.F. 99%, S1	Korea, Republic of	Mf 33, P.F. 0%, S6
Argentina	Mf 3, 1200, X-V, A16, P.F. 0%, S6	East Timor	Mabg, I-XII, A22, P.F.h, R7, S3	Lao People's Dem. Rep.	Mabcg 34, I-XII, A3 A13, P.F. 97%, R1, S3
Armenia	Mf 4, VI-X, A10 A18, P.F. 0%, S1	Ecuador	Mabc 17, 1500, I-XII, A1 A16, P.F. 57%, R1, S3	Liberia	Mabg, I-XII, A7 A8 A11, P.F. 90%, R7, S3
Azerbaijan	Mf 4α, VI-X, A10 A18, P.F. 0%, S1	Egypt	Mi 18, VI-X, A15 A19, P.F. <1%, S6	Madagascar	Mabg, I-XII, A7 A8, P.F. >85%, R1, S3
Bangladesh	Mabcg 5, I-XII, A3, A13 A22, P.F. 44%, R7, S3	El Salvador	Mf 19, 1000, I-XII, A1, P.F. <1%, S1	Malawi	Mabg, I-XII, A7 A8, P.F. 90%, R7, S3
Belize	Mab 6, 400, I-XII, A1, P.F. 14%, S1	Equatorial Guinea	Mabg, I-XII, A7 A8 A11, P.F. >85%, R7, S3	Malaysia	Made 35, 1700, I-XII, A3 A22, P.F. 65%, R2, S4
Benin	Mabg, I-XII, A7 A8 A11, P.F. 87%, R1, S3	Eritrea	Mabc 20, 2200, I-XII, A7 A8, P.F. 85%, R1, S3	Mali	Mabg I-XII, A7 A8, P.F. >85%, R7, S3
Bhutan	Mi 7, 1700, I-XII, A13, P.F. 41%, R7, S3	Ethiopia	Mabc 21, 2000, I-XII, A7 A8, P.F. >85%, R1, S3	Mauritania	Mabcg 36, I-XII, A8, P.F. >85%, R1, S3
Bolivia	Made 8, 2500, I-XII, A5 A16, P.F. 20%, R2, S4	French Guiana	Mabg, I-XII, A2 A5, P.F. 89%, R7, S3	Mauritius	Mi 37, I-XII, P.F. 0%, S6
Botswana	Mi 9 g, XI-VI, A8, P.F. 95%, R1, S3	Gabon	Mabg, I-XII, A7 A8, P.F. 95%, R7, S3	Mayotte and French Territorial Islands	Mabg, I-XII, A7 A8, P.F. h, R1, S3
Brazil	Made 10, 900, I-XII, A2 A5, P.F. 22%, R7, S3	Gambia	Mabg, I-XII, A7 A8, P.F. >85%, R7, S3	Mexico	Mi 38, 1000, A1 A16, P.F. 1%, S1
Burkina Faso	Mabg, I-XII, A7 A8, P.F. >85% R1, S3	Georgia	Mf 22, VII-X, P.F. 0%, S6	Morocco	Mi 39, V-X, A9, P.F. <1%, S6
Burundi	Mabg, I-XII, A7 A8, P.F. >85%, R1, S3	Ghana	Mabg, I-XII, A7 A8 A11, P.F. >85%, R7, S3	Mozambique	Mabg, I-XII, A7 A8, P.F. 95%, R7, S3
Cambodia	Mabcg 11, I-XII, A3 A13, P.F. 90%, R6, S3 S5	Guatemala	Mabc 23, 1500, I-XII, A1 A16, P.F. 5%, S1	Myanmar (Burma)	Mabc 40, 1000, IV-XII, A13, A22, P.F. 85%, R6 R9, S3 S5
Cameroon	Mabg, I-XII, A7 A8 A11, P.F. >85%, R7, S3	Guinea	Mabg, I-XII, A7 A8, P.F. 92%, R1, S3	Namibia	Mi 41, XI-VI, A8, P.F. 90%, R1, S3
Cape Verde	Mf 12, g, IX-XI, R8, S6	Guinea-Bissau	Mabg, I-XII, A7 A8, P.F. 90%, R1, S3	Nepal	Mad 42, 1200, I-XII, A13, P.F. 12%, R7, S3
Central African Republic	Mabg, I-XII, A7 A8, P.F. >85%, R7, S3	Guyana	Mabg 24, I-XII, A2 A5, P.F. 51%, R1, S3	Nicaragua	Mabc 43, 1000, I-XII, A1 A16, P.F. 10%, S1
Chad	Mabg, I-XII, A7 A8, P.F. >85%, R1, S3	Haiti	Mab 25, 300, I-XII, A1, P.F. 100%, S1	Niger	Mabg, I-XII, A7 A8, P.F. >85%, R1, S3
China	Mi 13, 1500, A24, P.F. 9%, R4, S4	Honduras	Mab 26, 1000, I-XII, A1, P.F. 3%, S1	Nigeria	Mabg, I-XII, A7 A8 A11, P.F. >85%, R7, S3
Colombia	Made 14, 800, I-XII, A5 A14 A16, P.F. 37%, R7, S3	India	Mabc 27, 2000, I-XII, A24, P.F. 38%, R7, S3	Oman	Mf 44, 2000, I-XII, A21, P.F. 90%, R1, S6
Comoros	Mabg, I-XII, A8, P.F. 88%, R1, S3	Indonesia	Mabc 28, 1200, I-XII, A22, P.F. 66%, R7, R9, S3	Pakistan	Mab, 2000, I-XII, A4 A23, P.F. 46%, R7, S3
Congo	Mabg, I-XII, A7 A8, P.F. 90%, R7, S3	Iran	Made 29, 1500, III-XI, A10 A18, P.F. 41%, R2, S4	Panama	Made 45, 800, I-XII, A1, P.F. 13%, R2, S4
Congo, Dem. Rep. (formerly Zaire)	Mabg, I-XII, A7 A8, P.F. 93%, R1, S3	Iraq	Mi 30, 1500, V-XI, A10 A18, P.F. >1%, S1	Papua New Guinea	Mab, 1800, I-XII, A6 A17, P.F. 82%, R7, R9, S3
Costa Rica	Made, 15, 700, I-XII, A1, P.F. <1%, S1			Paraguay	Mi 46, X-V, A5, P.F. 4%, S6
				Peru	Mi 47, 1500, I-XII, A1 A5 A16, P.F. 34%, R2, S4

Philippines	Made 48, 600, I-XII, A12, P.F. 74%, R7, S3
Rwanda	Mabg, I-XII, A7 A8, P.F. 90%, R7, S3
São Tomé & Príncipe	Mabg, I-XII, A8, P.F. >85%, R1, S3
Saudi Arabia	Mabc 49, I-XII, A19 A21, P.F. 88%, R1, S3
Senegal	Mabg, I-XII, A7 A8, P.F. >85%, R7, S3
Sierra Leone	Mabg, I-XII, A7 A8 A11, P.F. >85%, R1, S3
Solomon Islands	Mab, 400, I-XII, A6 A17, P.F. 62%, R7, S3
Somalia	Mabg, I-XII, A7 A8, P.F. 95%, R7, S3
South Africa	Mf 50, I-XII, A7 A8, P.F. 99%, R7, S3

Sri Lanka	Mabc 51, 800, I-XII, A4, P.F. 22%, R7, S3
Sudan	Mabg, I-XII, A7 A8, P.F. 90%, R7, S3
Suriname	Mab 52, 1300, A2 A5, P.F. 86%, R7, S3
Swaziland	Mf 53, I-XII, A8, P.F. 99%, R1, S3
Syrian Arab Rep.	Mf 54, 600, V-X, A18 A19, P.F. 0%, S1
Tajikistan	Mf 55, VI-X, A10 A18, P.F. 9%, S2
Tanzania	Mab, 1800, I-XII, A7 A8, P.F. >85%, R7, S3
Thailand	Madg 56, I-XII, A3 A13 A20 A22, P.F. 56%, R6, S5
Togo	Mabg, I-XII, A7 A8 A11, P.F. >85%, R1, S3
Turkey	Mi 57, V-X, A18, P.F. 0%, S1

Turkmenistan	Mf 58, VI-X, P.F. 0%, S1
Uganda	Mabg, I-XII, A7 A8, P.F. >85%, R7, S3
United Arab Emirates	Mf 59, I-XII, A21, P.F. 23%, S6
Vanuatu	Mabg 60, I-XII, A6, P.F. 62%, R7, R9, S3
Venezuela	Mi 61, 600, I-XII, A5 A14, P.F. 25%, R1, S3
Vietnam	Made 62, I-XII, A3 A13, P.F. 72%, R7, S3
Yemen	Mabc 63, 2000, I-XII, A21, P.F. 95%, R1, S3
Zambia	Mabg 64, I-XII, A7 A8, P.F. 90%, R1, S3
Zimbabwe	Mabc 65, 1200, XI-VI, A7 A8, P.F. 97%, R1, S3

MALARIA RISK CODE

M = malaria risk

a = present throughout the country

b = including urban areas

c = except areas specified

d = excluding urban areas

e = and excluding the areas specified

f = absent in most of the country, risk exists only in specified areas

g = risk present at all altitudes

h = no official information available

i = present in the country; areas of risk are specified

One or two digit numerals = refer to detailed description of malarious areas in this country.

Three or four digit numerals = express the altitude levels in meters below which the risk is present. (1 meter is approximately 3.3 feet.)

Roman numerals = identify months during which the risk of contracting malaria is high: I = January to XII = December.

A = Anopheles. Followed by one or two digit numerals, the letter **A** refers to the principal *Anopheles* species which transmit malaria in this country. See box below for feeding

habits and breeding places.

P.F. followed by % = the number of incidences expressed in percentage of falciparum malaria occurring in this country. Of the four species of human malaria parasites, *Plasmodium falciparum* is the most dangerous. The remainder expresses the number (%) of vivax group infections (benign forms of malaria caused by *Plasmodium vivax*, *Plasmodium ovale* and *Plasmodium malariae*. (E.g.: P.F. 89% = falciparum malaria infections; 11% = vivax group infections.)

< = Less than

ANOPHELES CODE

A = *Anopheles*, the principal vector for transmitting malaria in this country. (See chapter "The World of *Anopheles*" in IAMAT's publication HOW TO PROTECT YOURSELF AGAINST MALARIA.)

	Breeding places	Feeding habits and daytime resting places
A1 = <i>A. albimanus</i>	Coastal mosquito of central and northern part of South America; breeds in sunlit water collections, pools, lakes, lagoons.	Feeds on humans from dusk to midnight; rests outdoors in shaded areas.
A2 = <i>A. aquasalis</i>	Coastal mosquito; breeds in fresh or brackish water.	Starts feeding on humans at dusk; rests inside dwellings.
A3 = <i>A. balabacensis balabacensis</i>	Hill forest mosquito; breeds in small water collections under shade, animal footprints, shallow pools.	Bites late at night, rests outdoors.
A4 = <i>A. culicifacies</i>	Plains mosquito; breeds in fresh water with grassy edges, slow-moving streams, man-made containers, pools.	Feeds on humans and livestock at sunset; rests in dark corners of houses and cowsheds.
A5 = <i>A. darlingi</i>	Domestic mosquito; breeds in shaded bodies of still water, water under swamp vegetation, grassy edges of rivers, pool.	Feeds on humans inside human habitation; rests inside houses, often near beds.
A6 = <i>A. farauti</i>	Domestic mosquito; breeds in sunlit fresh or brackish water collections, pools, man-made containers.	Feeds in and outdoors at night; or during the day when skies are overcast; rests outdoors.
A7 = <i>A. funestus</i>	Open country mosquito; breeds in fresh sunlit swamps, large rivers and grassy stream margins.	Feeds at night on humans, mostly indoors; rests inside human habitations.
A8 = <i>A. gambiae</i>	Domestic mosquito; breeds in sunlit pools, footprints, pits, puddles close to human habitations, man-made containers.	Feeds on humans mostly indoors; biting peak: 2 a.m. - 4 a.m.; rests in dark places in and outdoors.
A9 = <i>A. labranchiae labranchiae</i>	Maritime mosquito; breeds in fresh or saline water of swamps, marshes near the coast.	Feeds on humans indoors; rests in animal shelters and inhabited houses.
A10 = <i>A. maculipennis</i>	Foothill mosquito; breeds in slow-moving streams, clear still water exposed to sunlight.	Feeds on humans and animals, rests in animal shelters.
A11 = <i>A. melas</i>	Sea coast mosquito; breeds in saline water of lagoons, marshes and swamps.	Feeds on humans indoors; rests indoors.
A12 = <i>A. minimus flavirostris</i>	Mosquito of foothills and rolling land; breeds in clear water of streams, ditches, wells and seepages.	Feeds on humans and livestock indoors, leaves dwellings early in the morning to rest in vegetation along the banks of streams.
A13 = <i>A. minimus minimus</i>	Mosquito of mountain and hilly areas; breeds in clear water of streams, irrigation ditches, ricefields.	Feeds on humans and livestock indoors, biting peak: 10 p.m. - 2 a.m.; rests in houses and cattle sheds.
A14 = <i>A. núñez-tovari</i>	Mosquito of open marshy areas, ponds and lakes, breeds also in temporary ground pools, animal or wheel tracks.	Starts to bite humans late in the evening indoors; rests outdoors.
A15 = <i>A. pharoensis</i>	Breeds in small shallow pools, wells, stagnant desert water, large bodies of water with aquatic vegetation.	Feeds on humans in and outdoors starting at sunset; rests mainly outside among vegetation.
A16 = <i>A. pseudopunctipennis pseudopunctipennis</i>	Highland valley mosquito; breeds in shallow pools, seepages, drying streams, tanks.	Feeds avidly on humans indoors; rests indoors.
A17 = <i>A. punctulatus</i>	Domestic mosquito; breeds in puddles, footprints, streams, man-made water collections.	Feeds on humans and animals outdoors, rests outdoors.
A18 = <i>A. sacharovi</i>	Mosquito of inland and coastal swamps; breeds in fresh or brackish water of marshes, swamps, man-made water collections.	Feeds indoors on humans and livestock, rests in houses and animal shelters.
A19 = <i>A. sergentii</i>	Oasis mosquito; breeds in small pools, seepages, slowmoving water.	Feeds on humans indoors after dark; rests in houses and tents.
A20 = <i>A. sinensis</i>	Mosquito of the plains; breeds in ricefields, swamps, lake margins.	Feeds outdoors on humans and livestock early in the evening; rests in animal shelters.
A21 = <i>A. stephensi stephensi</i>	Domestic mosquito; breeds in man-made containers, water collections near human habitations, footprints, puddles, lake margins.	Feeds indoors on humans starting after sunset; rests in houses and shelters.
A22 = <i>A. sudaicicus</i>	Coastal mosquito; breeds in brackish water, sunlit lagoons, swamps and marshes.	Feeds indoors on humans and livestock; rests in houses and shelters.
A23 = <i>A. superpictus</i>	Mountain mosquito; breeds in clear water of sunlit pools, hill streams and rivers.	Feeds indoors on humans, rests outdoors and in animal shelters.
A24 = For the vector in this country see text describing malarious areas.		

CODE FOR AREAS WITH CHLOROQUINE-RESISTANT *P. FALCIPARUM* MALARIA

- R1** = *P. falciparum* malaria is resistant to chloroquine. Resistance is present in all malarious areas.
- R2** = Refer to text for description of chloroquine-resistant areas.
- R3** = Chloroquine-resistant *P. falciparum* malaria must be assumed as surrounding areas report resistance.
- R4** = Chloroquine-resistant *P. falciparum* malaria is present in parts of the provinces of Yunnan, Guangxi and Guangdong including the island of Hainan. Yunnan and Hainan also report *P. falciparum* resistant to sulfadoxine-pyrimethamine. See details in text.
- R5** = Chloroquine-resistant *P. falciparum* malaria is present in all malarious areas, but accounts for only 10% of total malaria cases.
- R6** = **Comodia:** *P. falciparum* malaria is highly resistant to chloroquine and sulfadoxine-pyrimethamine; resistance to mefloquine hydrochloride has been reported from the western provinces (bordering Thailand).
- Myanmar:** *P. falciparum* malaria is highly chloroquine and sulfadoxine-pyrimethamine resistant. Resistance to mefloquine hydrochloride has been reported from the following states: Kayah, Mon and Shan.
- Thailand:** *P. falciparum* malaria is highly resistant to chloroquine and sulfadoxine-pyrimethamine. Resistance to mefloquine hydrochloride and quinine has been reported from the border areas with Cambodia (Trat Province) and Myanmar (Tak Province).
- R7** = Multi-drug-resistant (chloroquine and sulfadoxine-pyrimethamine) *P. falciparum* malaria is present in all malarious areas of this country.
- R8** = No official information is available
- R9** = Chloroquine-resistant *P. vivax* malaria has been reported from this country.

SUPPRESSIVE MEDICATION CODE

- S** = Suppressive medication is required. (For dosages see IAMAT's publication HOW TO PROTECT YOURSELF AGAINST MALARIA.) In offering guidance on the choice of antimalarial drugs the main concern is to provide protection against *P. falciparum* malaria. To prevent this fatal form of the disease, chloroquine is the drug of choice where the parasites are still sensitive to it. Chloroquine is also the preferred drug for the suppression of the benign forms of malaria, but it will not always prevent a delayed first attack or relapses due to *Plasmodium vivax* and *Plasmodium ovale*.
- The appearance of chloroquine-resistant and multi-drug-resistant *Plasmodium falciparum* in many malarious areas makes the choice of suppressive drugs problematic as none of the medications currently used is 100% effective. Regardless of the medication which has been taken, it is of utmost importance for the traveller and his physician to consider fever and flu like symptoms appearing seven days up to several months after leaving a malarious area as a malaria breakthrough. Early diagnosis is essential for successful treatment of such an infection.
- S1** = FOLLOW A CHLOROQUINE (ARALEN) REGIMEN

IN WEEKLY DOSES OF 500mg (300mg base). START ONE WEEK BEFORE ENTERING THE MALARIOUS AREA, CONTINUE WEEKLY DURING YOUR STAY, AND CONTINUE FOR FOUR WEEKS AFTER LEAVING.

- S2** = In this country chloroquine-resistant *Plasmodium falciparum* (CRPF) malaria is present, but accounts for a small percentage of total malaria cases and a first-choice prophylactic regimen of chloroquine should be followed. Chloroquine is the drug of choice for the suppression of the benign forms of malaria (*P. vivax*, *P. ovale*, *P. malariae*). Chloroquine may not prevent a malaria breakthrough of *P. falciparum*, but will lessen the severity of a possible infection and thus prevent fatal malaria.
- TAKE CHLOROQUINE (ARALEN) IN WEEKLY DOSES OF 500mg (300mg base). START ONE WEEK BEFORE ENTERING MALARIOUS AREA, CONTINUE WEEKLY DURING YOUR STAY AND CONTINUE FOR FOUR WEEKS AFTER LEAVING. CARRY WITH YOU A TREATMENT DOSE OF FANSIDAR (3 tablets taken as a single adult dose) or MALARONE (4 tablets taken as a single adult dose for three consecutive days). The treatment dose should be taken in case of flu-like symptoms — fever, headache, nausea, general malaise — appearing seven days or later after entering the malarious area and when medical attention cannot be sought immediately (within 24 hours). Even after taking the treatment dose, seek medical care as soon as possible. For description, dosages and contraindications of ARALEN, FANSIDAR AND MALARONE refer to IAMAT's publication HOW TO PROTECT YOURSELF AGAINST MALARIA.
- S3** = A high incidence of chloroquine-resistant and/or multi-drug resistant *Plasmodium falciparum* malaria is present in this country. Follow ONE of the following suppressive medication regimens:
- 1) **FOLLOW A LARIAM (MEFLOQUINE HYDROCHLORIDE) REGIMEN:** TAKE ONE TABLET OF LARIAM 250mg ONCE A WEEK. START ONE WEEK BEFORE ENTERING THE MALARIOUS AREA, CONTINUE WEEKLY DURING YOUR STAY AND CONTINUE FOR FOUR WEEKS AFTER LEAVING. (LARIAM should not be taken by persons suffering from cardiac diseases, liver or kidney disorders, epilepsy, psychiatric disorders, pregnant women and children under 30 lbs/15kg in weight. For description of antimalarial drugs see IAMAT'S publication HOW TO PROTECT YOURSELF AGAINST MALARIA.)
 - 2) **FOLLOW A MALARONE (ATOVAQUONE + PROGUANIL) REGIMEN:** TAKE ONE TABLET DAILY (250 mg atovaquone + 100 mg proguanil). START 1 TO 2 DAYS BEFORE ENTERING THE MALARIOUS AREA, CONTINUE DAILY DURING YOUR STAY, AND CONTINUE FOR 7 DAYS AFTER LEAVING. MALARONE should be taken at the same time every day with food or milk. See IAMAT's publication HOW TO PROTECT YOURSELF AGAINST MALARIA for description, dosages and contraindications of Malarone.
 - 3) **FOLLOW A DOXYCYCLINE (VIBRAMYCIN) REGIMEN:** TAKE ONE TABLET DAILY OF 100mg DOXYCYCLINE (VIBRAMYCIN). START ONE

DAY BEFORE ENTERING MALARIOUS AREA, CONTINUE DAILY DURING YOUR STAY, AND CONTINUE FOR FOUR WEEKS AFTER LEAVING.

When taking DOXYCYCLINE avoid exposure to direct sunlight and use sun screen with protection against long range ultraviolet radiation (UVA) to minimize risk of photosensitive reaction. Drink large amounts of water to avoid oesophageal and stomach irritation.

DOXYCYCLINE should not be taken by persons with known intolerance to tetracyclines, pregnant women and children under eight years of age. For description of antimalarial drugs refer to IAMAT's publication HOW TO PROTECT YOURSELF AGAINST MALARIA.

4) ANTI-MALARIAL REGIMEN FOR PERSONS WHO CANNOT FOLLOW ONE OF THE ABOVE REGIMENS:

TAKE CHLOROQUINE (ARALEN) IN WEEKLY DOSES OF 500mg (300mg base). START ONE WEEK BEFORE ENTERING MALARIOUS AREA, CONTINUE WEEKLY DURING YOUR STAY AND CONTINUE FOR FOUR WEEKS AFTER LEAVING. IT IS IMPERATIVE TO USE A MOSQUITO BED NET TO AVOID THE BITE OF THE NOCTURNAL *ANOPHELES* MOSQUITO. USE REPELLENTS AND INSECTICIDES AS DESCRIBED IN IAMAT'S PUBLICATION HOW TO PROTECT YOURSELF AGAINST MALARIA.

In countries with highly chloroquine-resistant *P. falciparum* malaria, a REGIMEN OF PALUDRINE (proguanil hydrochloride) 200mg DAILY (adult dose) SHOULD BE ADDED TO THE WEEKLY CHLOROQUINE REGIMEN.

PERSONS FOLLOWING A CHLOROQUINE OR A CHLOROQUINE PLUS PROGUANIL HYDROCHLORIDE REGIMEN MUST BE AWARE THAT THESE DRUGS ARE MUCH LESS EFFECTIVE THAN LARIAM, MALARONE OR DOXYCYCLINE. THEY MUST SEEK IMMEDIATE MEDICAL ATTENTION IN CASE OF FLU-LIKE SYMPTOMS — FEVER, HEADACHE, NAUSEA, GENERAL MALAISE — APPEARING ABOUT SEVEN DAYS OR LATER AFTER ENTERING MALARIOUS AREA.

Persons travelling to or working in remote areas where medical attention cannot be sought within 24 hours should consult with a specialist before leaving their home country for advice on a possible self-treatment regimen in case of a malaria breakthrough attack. For description of antimalarial drugs see IAMAT's publication HOW TO PROTECT YOURSELF AGAINST MALARIA.)

- S4** = See text for suppressive medication required in different areas of this country.
- S5** = Persons travelling to the multi-drug resistant *P. falciparum* malaria areas of this country should use a MALARONE (see S3 2) or a DOXYCYCLINE (see S3 3) regimen. Persons who cannot follow one of these regimens or contemplate a long term visit to these areas should seek advice from a specialist for a possible alternative drug regimen.
- S6** = Risk of contracting malaria is small, travellers to risk areas should take anti-mosquito measures during malaria season.

See Codes 1-62 on next page

CODE FOR DESCRIPTION OF MALARIOUS AREAS

- 1 = Afghanistan:** Persons travelling within Afghanistan only should follow an S2 antimalarial regimen. Persons travelling overland from and to Pakistan and to the refugee camps should follow a mefloquine hydrochloride regimen S3.
- 2 = Algeria:** Risk is present in the area of Thrir, Illizi Department, southeastern Sahara region. Risk period: March to October.
- 3 = Argentina:** Risk exists only in the rural areas of the extreme northwestern corner of the country bordering Bolivia: Province of Salta (northwestern corner of province); Departments of Santa Victoria, Iruya, Orán. Province of Jujuy (southeastern part of province); Departments of San Martín, Ledesma, Santa Bárbara and San Pedro, and along the border with Paraguay in the lowland areas of the provinces of Misiones and Corrientes.
- 4 = Armenia:** Risk is present in the villages of the Ararat valley (Masis District).
- 4α = Azerbaijan:** Risk is present in the southern Kür (Kura) Lowlands mainly between the rivers Kür (Kura) and Aras, and in the northern Khachmas Region. Sporadic cases of malaria are also reported from the suburbs of Baku.
- 5 = Bangladesh:** The city of Dhaka is risk free. Highest risk is present in the northeastern border areas with India and the southeastern border areas with Burma (Chittagong Division).
- 6 = Belize:** Malaria risk is present throughout the country including Belize City and island resort areas, nature reserves and archeological sites. High incidence rates have been reported from the districts of Cayo and Toledo.
- 7 = Bhutan:** Risk is present in the southern half of the country, in the following districts: Chirang, Sarpang, Samchi, Samdrupjongkhar and Shemgang.
- 8 = Bolivia:** The highlands of La Paz (above 2500 m), the two southwestern provinces of Oruro and Potosí are risk free. Chloroquine is the drug of choice for travel within Bolivia, follow a S2 regimen. Multi-drug resistant *P. falciparum* malaria has been reported from the Guayaramerín, Riberalto, Costa Rica areas and the northeastern border areas with Brazil (Dept. of Beni and Pando). Persons travelling into the Amazon basin and overland into Brazil should follow a S3 suppressive regimen because of the high incidence of multi-drug-resistant *P. falciparum* in that country.
- 9 = Botswana:** Risk exists in rural and urban areas in the northeastern parts of the country. The following areas are affected: Boteti, Chobe, Ngamiland, Okavango, Tutume, the areas along the border with Zimbabwe and the Limpopo river valley bordering South Africa's Northern Province.
- 10 = Brazil:** Risk of multi-drug-resistant malaria is high throughout the states of the Amazon Basin, including cities and towns (main cities in brackets): Acre (Rio Branco); Amapá (Macapá); Amazonas (Manaus); the western part of Maranhão (São Luís); the northern part of Mato Grosso (Cuiabá); Pará (Marabá, Santarém, except the city of Belém); Rondônia (Pôrto Velho), Roraima (Boa Vista); Tocantins. High malaria transmission occurs along the trans-Amazon highway, the road from Cuiabá to Santarém and in the valleys of the Araguaia, Xingu, Jamanxim and Tapajos rivers. Localized malaria outbreaks caused by the migration of infected persons from the Amazon region have been reported from other areas of Brazil.
Note: Persons on cruises on the Amazon and its tributaries, or travelling overland throughout the Amazon basin must follow an antimalarial regimen. Persons on short sideseeing trips to Iguaçu Falls are not at risk.
- 11 = Cambodia:** The city of Phnom Penh is risk free.
Note: Persons travelling to Angkor Wat must follow an antimalarial regimen.
- 12 = Cape Verde:** Risk is present on the Island of São Tiago.
- 13 = Northern China:** There is no malaria risk in the following municipalities and provinces (main cities are listed in brackets): Beijing Shi (Beijing), Tianjin Shi (Tianjin), Gansu (Lanzhou), Heilongjiang (Harbin), Jilin (Changchun), Nei Mongol (Hohhot), Ningxia (Yinchuan), Qinghai (Xining). Malaria risk is present from July to November in the following rural areas: Hebei (Shijiazhuang); the southern parts of the province including the areas along the Bo Hai (Bo Sea); Liaoning (Shenyang, Luda); the entire southern peninsula (Liaodong Banda); Shandong (Jinan); the entire province; Xinjiang (Shihezi): risk is present in the Ili valley on the northern border with the USSR. In Northern China only vivax malaria infections are present. Follow a S1 suppressive medication regimen. Main vector: *A. sinensis* (see *Anopheles* code).
Central China: Malaria risk exists in central China from May to December in rural areas of the following municipalities and provinces: Shanghai Shi (Shanghai); Anhui (Hefei), Henan (Zhengzhou), Hubei (Wuhan); in Shaanxi (Xi'an) the risk is present in the southern half of the province; in Sichuan (Chengdu, Chongqing) the eastern half of the province is infected with malaria. In central China vivax malaria infections are predominant. Follow a S2 suppressive medication regimen. Main vectors: *A. sinensis*, *A. minimus minimus* (See *Anopheles* code).
Southern China (including the southeastern tip of Tibet): Malaria risk is present throughout the year in rural areas of the following provinces: Fujian (Fuzhou), Guangdong (Guangzhou) including Hainan Island (Haikou), Guangxi (Nanning, Guilin), Guizhou (Guiyang), Hunan (Changsha), Jiangxi (Nanchang), Zhejiang (Hangzhou), Yunnan (Kunming); and the extreme southeastern part of Tibet in the area bordering India (Arunachal Pradesh) and Burma.

In southern China *P. falciparum* malaria is predominant. For chloroquine resistant areas see R4. When travelling through the rural areas of Yunnan province bordering Burma, Laos and Vietnam; the southern parts of Guangxi province bordering Vietnam and the Gulf of Tonkin; the areas of Guangdong province south and west of Guangzhou (Canton) (including hilly areas of the Zhu Jiang River delta and the island of Hainan) follow S3 guidelines for suppressive medication. Main vectors: *A. minimus minimus*, *A. balabacensis balabacensis* (see *Anopheles* code).
Macau is risk free.

Hong Kong: The urban areas of Hong Kong are risk free and there is no risk for travellers. Sporadic malaria cases have been reported from the northern rural border area of the special administrative region.

Note: The risk of contracting malaria in northern and central China is small. Persons on the usual tourist itinerary visiting major cities and making daytime excursions into the countryside do not need to take suppressive medication. Persons travelling to southern China on educational or scientific assignments in rural areas, or travelling extensively through rural areas must follow an antimalarial regimen.

14 = Colombia: The department of Bogotá and the Caribbean islands of San Andrés and Providencia are risk free.

Note: The cities of Bogotá, Cali, Manizales, Medellín and other cities and villages in the Andean highlands are risk free. On the Caribbean coast, the sea resort of Santa Marta and the cities of Barranquilla and Cartagena are risk free. Malaria risk is high in rural and jungle areas below 800 m, and persons travelling to rural areas, making excursions on the Magdalena River (south of Barranquilla), travelling along the Pacific coast, or travelling east of the Cordillera Oriental must follow S3 guidelines for suppressive medication.

15 = Costa Rica: San José and the central highlands are risk free. Malaria risk is present in the provinces of Guanacaste, Alajuela (highest incidence: Los Chiles canton), Heredia, Limón (highest incidence: Matina and Talamanca cantons).

Note: Persons vacationing on the Caribbean coast, travelling to the northern provinces, or visiting nature reserves in the above mentioned provinces should follow an antimalarial regimen.

16 = Dominican Republic: Risk exists along the border with Haiti in the following urban and rural areas: entire Province of Monte Cristi; entire Province of Dajabón; Province of Elias Piña: municipality of Báncica, Comendador and El Llano; Province of Independencia: municipality of Jimaní; Province of Barahona: municipalities of Barahona and Cabral; Province of Pedernales: municipality of Pedernales. Malaria cases have been reported from all parts of the country, including resort areas. An antimalarial regimen of chloroquine is advised for travellers to the above described border areas with Haiti or when travelling in rural areas throughout the country

Note: Persons vacationing in resort areas (Puerta Plata, Punta Cana, San Pedro de Macoris, etc.) must take meticulous anti-mosquito measures from dusk to dawn.

17 = Ecuador: Malaria risk is present in the provinces of El Oro, Esmeralda, Manabí, Cotacopaxi, Loja and Los Ríos. Guayaquil City and the Galapagos Islands are risk free.

Note: Because of high altitude there is no malaria risk in the cities of Quito (2879 m) and Cuenca (3530 m) and other cities and villages in the Andean highlands. Persons travelling to the upper Amazon basin area: Pastaza River, Upano River, Coca or Lago Agrio for cruises on the Napo River and its tributaries must follow a suppressive regimen.

18 = Egypt: Risk exists in the El Faiyum area.

Note: Persons visiting the main tourist areas and archeological sites are not at risk.

19 = El Salvador: Risk is present in rural areas of Santa Ana province, especially along the border with Guatemala.

20 = Eritrea: Asmara (2325 m) is risk free.

21 = Ethiopia: Addis Ababa (2450 m; 3038 ft.) and the highlands are risk free.

22 = Georgia: Risk is present in the southeastern corner of the country bordering Azerbaijan.

23 = Guatemala: The city of Guatemala and the high altitude areas of the central highland are risk free.

Note: Persons vacationing on the Pacific or Caribbean coasts, or contemplating trips to the archeological sites of Sayache and Tikal and the jungle of Petén, or travelling throughout the interior must follow an antimalarial regimen.

24 = Guyana: Only the city centers of Georgetown and New Amsterdam are risk free. Risk of malaria is high in all rural areas.

25 = Haiti: Persons vacationing in sea resorts must take malaria suppressive medication.

26 = Honduras: Risk is present throughout the country including the cities of Tegucigalpa and San Pedro Sula.

Note: Persons vacationing in the sea resorts of Ceiba and Tela or the Bay Islands (Islas de la Bahía), or travelling along the Atlantic or Pacific coasts, or extensively in the interior must take malaria suppressant medication.

27 = India: Only the high altitude areas (above 2000 m) of the following states are risk free: Himachal Pradesh, Jammu, Kashmir and Sikkim.

Main vectors: northern India; *A. minimus minimus*; Ganges plane: *A. stephensi stephensi* and *A. culicifacies*; peninsular India: *A. culicifacies* (See *Anopheles* code).

Note: Risk is present throughout India including Bombay and Delhi, travellers must take a full course of suppressive medication.

28 = Indonesia: Jakarta, Surabaya, Denpasar (Bali) and other large cities are risk free, including the beach resorts in

southern Bali. Sporadic cases of malaria in travellers have been reported from rural areas of Bali (Padangbai area), Bintan and Lombok Islands.

Note: Persons travelling extensively in rural areas, or on cruises between the islands, or making night-time excursions to night festivals in rural areas must take a full course of malaria suppressant medication. Irian-Jaya reports a high incidence of malaria from all regions.

29 = Iran: Risk is present during the summer months in rural areas throughout Iran, except the central and northern high altitude areas (above 1500 m). The highest incidence rates occur in the southeastern parts of the country (Hormozgan, southern Kerman, Baluchistan and Sistan provinces). Chloroquine is the drug of choice for Iran. Chloroquine-resistant *P. falciparum* malaria has been reported from the Baluchistan-Sistan border areas with Afghanistan and Pakistan. Follow S3 guidelines for suppressive medication in this area.

30 = Iraq: Risk exists in the northeastern provinces including the cities of Duhok, Irbil, Kirkük, Mawsil, Ninawa and Sulaymáníyah. Risk is also present in rural areas in the eastern half of the country along the border with Iran, including the city of Basrah.

Note: The city of Baghdad is risk free.

31 = Kenya: Risk is low in the city of Nairobi and in the high altitude areas (above 2500 m) of the provinces of Central, Eastern, Nyanza and Rift Valley. Persons contemplating safaris or vacationing in Mombasa and the sea resorts along the coast must take suppressive medication.

32 = North Korea: Malaria risk is present along the southern border with South Korea.

33 = South Korea: Malaria risk is present along the northern border with North Korea, particularly in Kyunggi Do province. Daytime excursions to the Demarcation Line do not warrant the need for an antimalarial regimen.

34 = Laos: The city of Vientiane (Vientiane) is risk free.

35 = Malaysia: Urban and coastal areas of peninsular Malaysia including the Island of Pinang are risk free. Risk is present in the mountainous interior of the triangle shared by the states of Kelantan, Pahang and Perak (Cameron Highlands).
Island of Borneo:

Sarawak: Coastal and urban areas are risk free.

Sabah: Risk is present in urban and rural areas throughout the year. P.F. 80% in Sabah.

Multi-drug-resistant *P. falciparum* is present in all malarious areas; follow S3 guidelines for suppressive medication.

36 = Mauritania: There is no risk in the northern areas of Dakhlet-Nouadhibou and Tiris-Zemour (north of 20 N). In Adrar and Inchiri regions risk is present from July to October. In the southern part of the country risk is present throughout the year.

37 = Mauritius: Risk is present in rural areas of the following districts: Pamplemousses, Plaines Wilhelms, Rivière du Rampart, Grand Port and Port Louis.

There is no risk on the island of Rodrigues.

38 = Mexico: Risk exists in the following rural areas below 1000 m;

- the Pacific coastal areas from Guaymas to the southern border with Guatemala; months of risk: all, except for the states of Sonora and Sinaloa where the risk is present from May to October,
- the valleys of central Mexico below 1000 m; months of risk: May to October,
- the coastal areas along the Gulf of Mexico from Tampico to and including the Yucatan Peninsula; months of risk: all.

Plasmodium vivax is predominant, Plasmodium falciparum malaria is present in small foci of Chiapas, Tabasco and Quintana Roo, in the forested border areas with Guatemala and Belize.

Note: Visitors to the major resorts along both coasts (Acapulco, Puerto Vallarta, etc.) residing in hotels should use mosquito repellents (containing DEET) after sunset. They do not require an antimalarial regimen. Persons camping and hiking along the coasts should take a full course of suppressive medication.

Archeological sites: Daytime excursions from cities to the following archeological sites do not require an antimalarial regimen. However, persons staying overnight in the vicinity or in nearby villages should take a full course of suppressive medication.

• Bonampak, El Cayo, La Mar, Palenque, Toniná, etc. in the state of Chiapas. (There is no risk in the cities of Villahermosa and Tuxtla Gutierrez);

• Becan, Calakmul, Edzná, Hochob, Xpuhil, etc. in the state of Campeche. (There is no risk in the city of Campeche);

• Cobá, Muylil, Tulum, Xelha, etc. in the state of Quintana Roo. (There is no risk on Cozumel and Cancún).

• Balankanche Cave, Chichén Itzá, Kabáh, Labná, Mayapán, Sayil, Uxmal, etc. in the state of Yucatán. (There is no risk in the cities of Mérida and Valladolid).

39 = Morocco: Risk is present in rural areas of the north-central province of Khourigba.

40 = Myanmar: The city of Yangon (formerly Rangoon) and the urban centers of Mandalay, Magwe, Pegu and Sagaing are risk free.

41 = Namibia: Risk exists in the northern part of the country in the area bordering Angola (Ovamboland), Zambia and Botswana (Caprivi Strip, Otjozondjupa and Omaheke). In the Kunene and Okavanga River valleys/Caprivi Strip risk is present throughout the year.

Note: Persons visiting Etosha National Park must follow a suppressive regimen during risk season.

42 = Nepal: Kathmandu and the northern high altitude areas of the country are risk free. Multi-drug resistant *P. falciparum* malaria has been reported from the malarious areas in the southern part of the country: the districts of

- Dhanukha, Mahotari, Sarlahi, Rautahat, Bara, Parsa, Rupendehi, Kapilvastu (Terai districts) and all areas along the border with India. Persons flying into Kathmandu and visiting the northern Himalayan districts do not need to take malaria suppressive medication. Persons travelling from India overland into Nepal and throughout the southern parts of the country must follow S3 guidelines for malaria suppressive medication.
- 43 = Nicaragua:** Recent malaria outbreaks in urban areas have been reported. All travellers must follow a suppressive regimen. Major risk is present in the outskirts of towns and rural areas, including the shore areas of Lake Managua.
- 44 = Oman:** Risk of malaria is present in the most northern province of Musandam.
- 45 = Panama:** There is no risk along the Panama Canal Zone, the cities of Panamá and Colón and the central highlands above 800 m. Risk is present in the following areas east of the Canal: Province of San Blas, including the islands of San Blas and the Province of Darien where S3 guidelines for suppressive medication must be followed. West of the Canal risk is present along the Caribbean coast with the Province of Bocas de Toro reporting the highest incidence. Follow a S1 regimen.
- 46 = Paraguay:** Risk exists in the rural areas of the following departments bordering Brazil: Amambay, Canendiyú, Alto Paraná and Caaguazú.
Note: Persons on short site-seeing trips to Iguassu Falls are not at risk.
- 47 = Peru:** Risk exists in rural areas below 1500 m in the following parts of the country.
Northwest Peru: along the coast in the Departments of Tumbes, Piura, Lambayeque, and La Libertad, Ancash and the Departments of Cajamarca, Amazonas, San Martín.
Northeastern and Eastern Peru: the Departments of Loreto and Ucayali.
Central and Southern Peru: Departments of Madre de Dios, Huanuco, Ayacucho, Apurímac and the following areas of the Department of Cusco: La Convención province; Department of Junín: Satipo and Chanchamayo provinces.
Note: There is no malaria risk in Lima, and the Andean highlands (Cuzco, Machu Picchu, Puno, Ayacucho, Huancayo and other high-altitude areas). Chloroquine is the drug of choice for travel within Peru: follow a S1 suppressive regimen. Cases of multi-drug-resistant *P. falciparum* malaria have been reported from the following border areas: Tumbes Department bordering Ecuador, Napo and Putumayo river valleys bordering Colombia; Yavari, Acre and Madre de Dios river valleys bordering Brazil and Bolivia. Persons travelling into the Amazon basin (Loreto) and overland into the neighbouring countries of Ecuador, Colombia and Brazil must follow a S3 suppressive medication regimen because of the high incidence of multi-drug resistant *P. falciparum* malaria in these countries.
- 48 = Philippines:** The following areas are risk free: Metropolitan Manila, major urban areas, the islands of Bohol, Catanduanes, Cebu. Risk is generally low in rural areas except for the following provinces which still have a high incidence of malaria: Luzon Island: provinces Kalinga-Apayao, Cagayan, Isabela and Abra, Mindanao: provinces of Surigao del Sur, Agusan del Sur, Davao Davao del Sur; Mindoro; Basilan; Calamian; Palawan and Sulu Archipelago (Tawi Tawi).

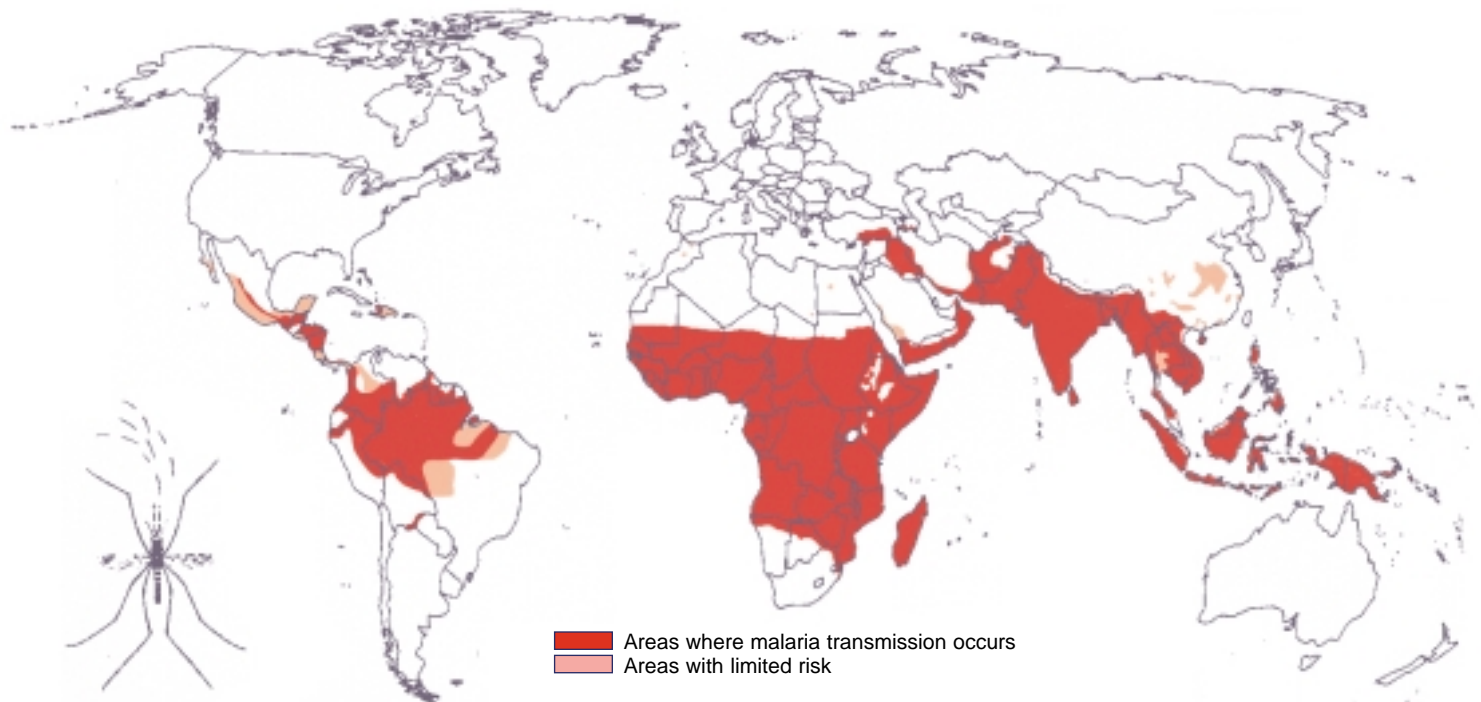
- 49 = Saudi Arabia:** The Eastern, Northern and Central Provinces and the high altitude areas of Asir Province (southwest) are risk free: Ad Dammām, Al Quatif, Al Jawf, Tabūk, Ar Riyād, etc. The urban areas of Western Province — Jiddah, Al Madinah, Makkah, Ta'if — are risk free.
- 50 = South Africa:** Risk is present in the northeastern part of the country in the lowlying areas of Northern and Mpumalanga Provinces bordering Botswana, Zimbabwe and Mozambique including the Kruger National Park, and along the coast of Natal north of the Tugela river.
Note: Persons visiting the Kruger National Park are advised to take malaria suppressive medication during the high risk season from October to May. Antimosquito measures should be taken year-round when in malarious areas.
- 51 = Sri Lanka:** The city of Colombo and the District of Nuwara Eliya (1880 m) are risk free.
- 52 = Suriname:** High risk is present in the southern districts of the country. In the city of Paramaribo and all coastal districts transmission occurs at a low level.
- 53 = Swaziland:** Risk exists in the northern and eastern grassland and plain areas, particularly in the areas of Big Bend, Mhlume, Simunye and Tshaneni.
- 54 = Syria:** Risk is present in the northern border areas with Turkey, recent focal outbreaks have been reported from Haleb (Aleppo) and Al Hasakah.
- 55 = Tajikistan:** Malaria transmission occurs in the southern border area with Afghanistan (Khatlon). Foci of transmission have also been reported from central areas (Dushanbe), western areas (Gorno Badakhshan) and northern areas (Leninabad) of the country.
- 56 = Thailand:** **Note:** There is no malaria risk in the cities of Bangkok, Chiang Mai, Songkhla and the resort areas of Pattaya, Phuket and Samui. Persons flying into cities and making only daytime excursions to rural areas do not need to take malaria suppressive medication. Persons travelling by car, boat or train through rural areas of the interior, especially forested and hilly areas, and to mining and refugee camps should be aware of the presence of multi-drug resistant malaria. Follow S5 guidelines.
- 57 = Turkey:** Risk is present in urban and rural areas of south-eastern Anatolia (Çukurova/Amikova areas) from March to the end of November. High incidence rates have been reported from the following provinces: Adana, Batman, Diyarbakir, Mardin, Mus, Sanliurfa, Sirtak and Siirt.
- 58 = Turkmenistan:** Risk is present in the southeastern corner of the country in the district of Mary (bordering Iran and Afghanistan).
- 59 = United Arab Emirates:** Malaria risk is present in the foothills and valleys of the mountainous northeastern part of the country bordering Oman. There is no risk in urban areas.
- 60 = Vanuatu:** Risk is present on all islands including Efate where locally transmitted cases have been reported in the capital Port Vila.
- 61 = Venezuela:** **Northern Venezuela:** There is no malaria risk in the cities and sea resorts of northern Venezuela (Caracas, Maracaibo, Macuto, Isla de Margarita). Sporadic cases are reported from rural areas below 600 m. Malaria risk is present in rural areas of Sucre state where the municipio of Santa Fe reports the largest number of cases. **Western Venezuela:** Malaria risk exists in the following areas: state of Apure: the extreme western part of the state (the areas west of the city of Guasdualito) and all rural and urban areas south of the Azauca river; state of Barinas:

the western third of the state excluding the city of Barinas. Main vector: *A. nùñez-tovari* (see *Anopheles* code). **Southern Venezuela:** *Federal Territory of Amazonas:* Malaria risk is present throughout the territory especially in the areas below 600 m of the Orinoco River basin and its tributaries, mainly in the rain forest areas; state of Bolívar: Malaria risk exists along the Orinoco River in the areas bordering the states of Apure and Guárico (west of Las Bonitas). Risk is present in the central and southern parts of the state below 600 m in the valleys of the Paragua and Caroni Rivers. Main vector: *A. darlingi* (see *Anopheles* code). **Eastern Venezuela:** Malaria risk is present throughout the *Federal Territory of Delta-Amacuro*. Main vector: *A. darlingi* (see *Anopheles* code). **62 = Vietnam:** Malaria risk is present in all rural areas, especially in the provinces of Ca Mau and Bac Lieu and the forested highland areas; except the urban areas (Hanoi, Ho Chi Minh City), the Red River Delta and the coastal plain north of Nha Trang. **63 = Yemen:** The city of Sana'a (2377 m) is risk free. **64 = Zambia:** **Note:** Persons visiting Victoria Falls must take malaria suppressive medication. **65 = Zimbabwe:** **Note:** Harare (1472 m) and Bulawayo (1343 m) are risk free, although sporadic cases have been reported during the malaria season (November to June). In the Zambezi valley risk is present throughout the year. Persons visiting Victoria Falls must take malaria suppressive medication.

MALARIA FREE COUNTRIES

Albania, Andorra, Antigua and Barbuda, Australia, Austria, Azores, Bahamas, Bahrain, Barbados, Belarus, Belgium, Bermuda, Bosnia and Herzegovina, Brunei Darussalam, Bulgaria, Canada, Canary Islands, Cayman Islands, Chile, Christmas Island, Cocos Islands, Cook Islands, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Dominica, Estonia, Falkland Islands, Faroe Islands, Fiji, Finland, France, French Polynesia, Germany, Gibraltar, Greece, Greenland, Grenada, Guadeloupe, Guam, Hawaii, Hungary, Iceland, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kiribati, Kuwait, Kyrgyzstan, Latvia, Lebanon, Lesotho, Libyan Arab Jamahiriya, Liechtenstein, Lithuania, Luxembourg, Macedonia, Madeira Islands, Maldives, Malta, Marshall Islands, Martinique, Micronesia, Moldova, Monaco, Mongolia, Monserrat, Nauru, Netherlands, Netherlands Antilles, New Caledonia, New Zealand, Niue, Norfolk, Northern Mariana Islands, Norway, Pacific Islands Trust Territory, Palau, Pitcairn, Poland, Portugal, Puerto Rico, Qatar, Reunion, Romania, Russia, St. Helena, St. Kitts and Nevis, St. Lucia, Saint Pierre and Miquelon, St. Vincent and the Grenadines, Samoa (American and Western), San Marino, Seychelles, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tokelau, Tonga, Trinidad and Tobago, Tunisia, Tuvalu, Ukraine, United Kingdom, United States of America, Uruguay, Uzbekistan, Virgin Islands (British and U.S.A.), Wake Island, Yugoslavia.

This information has been compiled from numerous sources and WHO documents. The recommendations outlined in this document are intended as guidelines only. For a prophylactic malaria regimen tailored to your needs, seek further advice from your physician or travel clinic. © Copyright 2002 IAMAT



Anopheles gambiae