

**Table R.2** Criteria for classifying countries according to malaria programme phase

	Pre-elimination	Elimination	Prevention of reintroduction
<b>Malaria situation in areas with most intense transmission</b>			(1) Recently endemic country with zero local transmission for at least three years; or (2) Country on the Register or Supplementary list that has ongoing local transmission*
Test positivity rate	≤5% among suspected malaria patients (PCD) throughout the year		
API in the district with the highest number of cases/1000 population/year (ACD and PCD)**, averaged over the last two years	<5 (less than 5 cases / 1000 population)	<1 (less than 1 case / 1000 population)	
Total number of reported malaria cases nationwide		A manageable number, e.g. <1000 cases nationwide (local & imported)	
<b>Case management</b>			Imported malaria. Maintain capacity to detect malaria infection and manage clinical disease
All cases detected in the private sector are microscopically confirmed	National policy being rolled out	Yes	Yes
All cases detected in the public sector are microscopically confirmed	National policy being rolled out	Yes	Yes
Nationwide microscopy quality assurance system covers public and private sector	Initiated	Yes	Yes
Radical treatment with primaquine for <i>P. vivax</i>	National policy being updated	National policy fully implemented	Yes
Treatment with ACT plus single dose primaquine for <i>P. falciparum</i>	National policy being updated	National policy fully implemented	Yes
<b>Surveillance</b>			Vigilance by the general health services
Malaria is a notifiable disease nationwide (<24–48 hrs)	Laws and systems being put in place	Yes	Yes
Centralized register on cases, foci and vectors	Initiated	Yes	Yes
Malaria elimination database	Initiated	Yes	Certification process (optional)
Active case detection in groups at high risk or with poor access to services ("pro-active" case detection)	Initiated	Yes	In residual and cleared-up foci; among high risk population groups
Case and foci investigation & classification (including "reactive" case detection and entomological investigation)	Initiated	Yes	Yes

\* Ongoing local transmission = 2 consecutive years of local *P. falciparum* malaria transmission; or 3 consecutive years of local *P. vivax* malaria transmission in the same locality or otherwise epidemiologically linked.

\*\* The API has to be evaluated against the diagnostic activity in the risk area (measured as the ABER). Low values of ABER in a district raise the possibility that more cases would be found with improved diagnostic efforts.

**Table R3** Countries that have been certified by WHO as malaria-free or added to the supplementary list of countries where malaria never existed or disappeared without specific measures

WHO Region	Country/territory	Year added to the official register*	Year added to the supplementary list**
<b>African</b>	Lesotho		2012
	Mauritius	1973	
	Seychelles		2012
<b>Eastern Mediterranean</b>	Bahrain		2012
	Jordan		2012
	Kuwait		1963
	Lebanon		2012
	Libya		2012
	Morocco	2010	
	Qatar		2012
	Tunisia		2012
	United Arab Emirates	2007	

WHO Region	Country/territory	Year added to the official register*	Year added to the supplementary list**
European	Albania		2012
	Andorra		2012
	Armenia	2011	
	Austria		1963
	Belarus		2012
	Belgium		1963
	Bosnia and Herzegovina	1973	
	Bulgaria	1965	
	Croatia	1973	
	Cyprus	1967	
	Czech Republic		1963
	Denmark		1963
	Estonia		2012
	Finland		1963
	France (with exception of French Guiana and the island Mayotte)		2012
	Germany		1964
	Greece		2012
	Hungary	1964	
	Iceland		1963
	Ireland		1963
	Israel		2012
	Italy	1970	
	Kazakhstan		2012
	Latvia		2012
	Lithuania		2012
	Luxembourg		2012
	Malta		1963
	Monaco		1963
	Montenegro	1973	
	Netherlands	1970	
	Norway		1963
	Poland	1967	
	Portugal	1973	
	Republic of Moldova		2012
	La Réunion, France	1979	
	Romania	1967	
	Russian Federation		2012
	San Marino		1963
	Serbia	1973	
	Slovakia		1963
	Slovenia	1973	
	Spain	1964	
	Sweden		1963
	Switzerland		1963
The former Yugoslav Republic of Macedonia	1973		
Turkmenistan	2010		
Ukraine		2012	
United Kingdom		1963	
Region of the Americas	Antigua and Barbuda		2012
	Bahamas		2012
	Barbados		1968
	Canada		1965
	Chile		1968
	Cuba	1973	
	Dominica	1966	
	Grenada	1962	
	Jamaica	1966	
	Saint Kitts and Nevis		2012
	Saint Lucia	1962	
	Saint Vincent and the Grenadines		2012
	Trinidad and Tobago	1965	
	United States of America	1970	

WHO Region	Country/territory	Year added to the official register*	Year added to the supplementary list**
Region of the Americas	Uruguay		2012
	Venezuela (Bolivarian Republic of, northern part)	1961	
South-East Asia	Maldives		2012
Western Pacific	Australia	1981	
	Brunei Darussalam	1987	
	China, Taiwan	1965	
	Cook Islands		1963
	Fiji		1963
	Japan		2012
	Kiribati		2012
	Marshall Islands		1963
	Micronesia (Federated States of)		1963
	Mongolia		1963
	Nauru		1963
	New Zealand		1963
	Niue		1963
	Palau		1963
	Samoa		1963
	Singapore	1982	
	Tonga		1963
Tuvalu		2012	

\*WHO Official Register of areas where malaria elimination has been achieved

\*\*Supplementary list indicates countries where malaria never existed or disappeared without specific measures

control activities (a 50% decrease in the number of cases is unlikely to occur if malaria control activities cover only 10% of the population at risk) and if the decreases in malaria incidence cannot readily be explained by other factors.

## R.4 Classification of countries according to malaria programme phase

In February 2012, the Malaria Policy Advisory Committee (MPAC) discussed the classification of countries according to their malaria programme phase and the milestones on the path to malaria elimination (4). It noted that the format of the classification criteria as used in previous editions of the *World Malaria Report* (5,6,7) did not facilitate tracking over time. This discussion led to the development of updated classification criteria supported by indicators to make the process of classification as transparent as possible. The updated WHO country classification criteria are based on an evaluation of 3 main components: i) the malaria situation, ii) case management practices, and iii) the surveillance system as shown in **Table R.2**.<sup>2</sup> The evaluation concentrates on the situation in those districts of the country reporting the highest API.

Also as a result of the MPAC discussions, the list of countries that are officially recognized as being malaria-free has been expanded to include all countries that i) never had malaria transmission, or ii) have been malaria-free for well over a decade. In consultation with the WHO Regional Offices, 31 malaria-free countries have therefore been added to the "Supplementary list"<sup>3</sup>

2. Other components such as (1) the stated programme goal; (2) vector control and malaria prevention practices; and (3) health systems and financing are also important for tracking progress towards elimination, however they are less specific and therefore not included as classification criteria.
3. The *Supplementary list* was started in the 1960s during the Global Malaria

(see **Table R.3**). The *Supplementary list* complements the list of countries that have been certified by WHO as malaria-free ("*The Register*")<sup>4</sup> (6). All the countries and areas on these two lists have been without local malaria transmission for significant periods of time, even though some may suffer renewed outbreaks of local transmission subsequent to importation of parasites from abroad (including, as of 2011, Greece). Countries included in the *Supplementary list* do not need to request (and are not eligible for) certification of their malaria-free status.

The northern part of Venezuela (Bolivarian Republic of) is the only subnational administrative level immediately adjacent to endemic areas that has ever been certified by WHO as malaria-free, and was the first area so certified by the Pan American Health Organization (PAHO) in 1961. The other WHO certification exercises concerned entire nations, in addition to the islands of Taiwan (China, 1965) and La Réunion (France, 1979). Since 1980, WHO certification has only taken place at national level. As of 2011, elimination at subnational level, usually in the form of a "malaria-free initiative", is a declared goal in several control-phase countries, including China, Indonesia, the Philippines, Solomon Islands, Sudan, Vanuatu, and Yemen. In the Philippines, the Ministry of Health is providing subnational certification of achievement of malaria elimination at provincial level.

## R.5 Regional profiles

- Eradication Programme (1955–1972) to indicate countries where malaria never existed or disappeared without specific measures.
4. The *WHO Official Register of areas where malaria eradication has been achieved*.