

Abstract

2020 World Malaria Report

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Among the five species of human malaria, *Plasmodium falciparum* (*P. falciparum*) and *Plasmodium vivax* (*P. vivax*) are important and critical in public health. *P. falciparum* is most prevalent in the African continent and a major cause of deaths by malaria whereas *P. vivax* has a wider geographical distribution.

By 2019, the the World Health Organization (WHO) estimated that the number of infected cases and deaths of malaria increased to 229 million and 409,000, respectively. Regionally, It was estimated that most cases in 2019 occurred in the African Region (94%), followed by the South-East Asian Region (3%) and the Eastern Mediterranean Region (2.1%). Similarly, it was estimated that most deaths (94%) in 2019 were reported in the African Region. Furthermore it was reported that children under the age of 5 accounted for 67% of the malaria deaths. Many countries are moving forward to elimination. By way of example, the number of countries with less than 10,000 malaria cases increased from 26 in 2000 to 46 in 2019.

In 2020, the WHO worked with serveral partners to complete malaria prevention campaigns and minimize the suspension of diagnosis and treatment in order to prevent the increase of patients and deaths caused by malaria in countries with malaria even in the face of COVID-19.

The Division of Vectors and Parasitic Diseases in Korea Disease Control and Prevention Agency (KDCA) has been continuously cooperating with international and national agencies to control or eliminate malaria.

Keywords: Malaria, World Health Organization (WHO), Elimination, Korea Disease Control and Prevention Agency (KDCA)

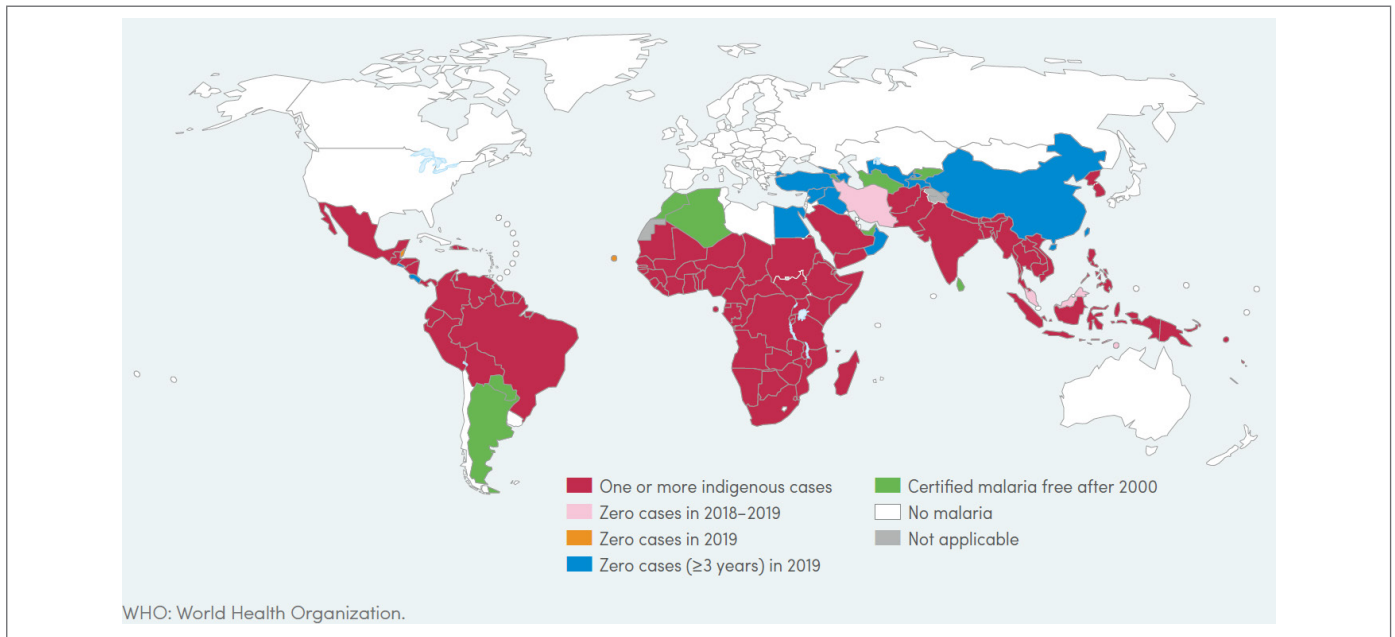


Figure 1. Countries with indigenous cases in 2000 and their status by 2019 [2]

Table 1. Global estimated malaria cases and deaths, 2000–2019 [2]

Year	Number of cases (X 1,000)	<i>P. vivax</i> (%)	Number of deaths point
2000	238,000	6.90%	736,000
2001	244,000	7.40%	739,000
2002	239,000	7.10%	736,000
2003	244,000	7.80%	723,000
2004	248,000	8.00%	759,000
2005	247,000	8.30%	708,000
2006	242,000	7.20%	716,000
2007	241,000	6.80%	685,000
2008	240,000	6.50%	638,000
2009	246,000	6.50%	620,000
2010	247,000	7.00%	594,000
2011	239,000	7.20%	545,000
2012	234,000	6.60%	517,000
2013	225,000	5.30%	487,000
2014	217,000	4.30%	471,000
2015	218,000	3.90%	453,000
2016	226,000	4.00%	433,000
2017	231,000	3.40%	422,000
2018	228,000	3.20%	411,000
2019	229,000	2.80%	409,000

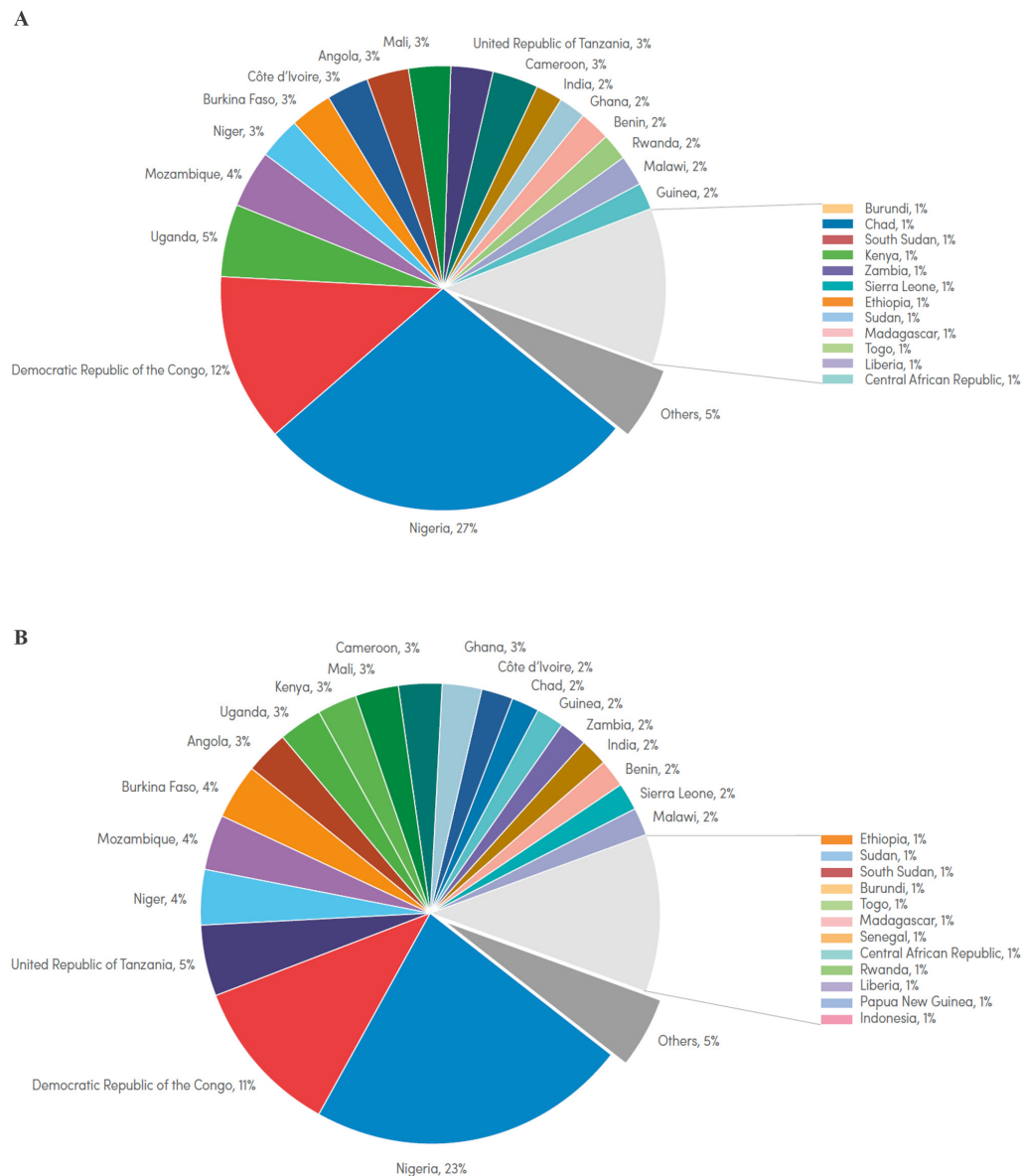


Figure 2. Estimated country share of (A) total malaria cases and (B) *P. vivax* malaria cases, 2019 [2]

Table 2. Countries that eliminated malaria, 2000–2019 [2]

2000	Egypt	United Arab Emirates (2007)		
2001				
2002				
2003				
2004	Kazakhstan			
2005				
2006				
2007	Morocco (2010)	Syrian Arab Republic	Turkmenistan (2010)	
2008	Armenia (2011)			
2009				
2010				
2011	Iraq			
2012	Georgia	Georgia		
2013	Argentina (2019)	Kyrgyzstan (2016)	Oman	Uzbekistan (2018)
2014	Paraguay (2018)			
2015	Azerbaijan	Sri Lanka (2016)		
2016	Algeria (2019)			
2017	Tajikistan			
2018				
2019	China	El Salvador		

Table 3. Number of indigenous malaria cases in E–2020 countries, 2010–2019 [2]

Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Algeria	1	1	55	8	0	0	0	0	0	0
Belize	150	72	33	20	19	9	4	7	3	0
Bhutan	436	194	82	15	19	34	15	11	6	2
Botswana	1,046	432	193	456	1,346	326	716	1,900	585	169
Cabo Verde	47	7	1	22	26	7	48	423	2	0
China	4,990	3,367	244	86	56	39	1	0	0	0
Comoros	36,538	24,856	49,840	53,156	2,203	1,300	1066	2,274	15,613	17,599
Costa Rica	110	10	6	0	0	0	4	12	70	95
Ecuador	1,871	1,219	544	368	242	618	1191	1,275	1,653	1,803
El Salvador	19	9	13	6	6	2	12	0	0	0
Eswatini	268	549	562	962	711	157	350	724	308	239
Iran	1,847	1,632	756	479	358	167	81	60	0	0
Malaysia	5,194	3,954	3,662	2,921	3,147	242	266	85	0	0
Mexico	1,226	1,124	833	495	656	517	551	736	803	618
Nepal	3,894	3,414	3,230	1,974	832	591	507	623	619	127
Paraguay	18	1	0	0	0	0	0	0	0	0
Republic of Korea	1,267	505	394	383	557	627	602	436	501	485
Saudi Arabia	29	69	82	34	30	83	272	177	61	38
South Africa	8,060	9,866	5,629	8,645	11,705	4,357	4323	28,295	9,540	3,096
Suriname	1,771	771	356	729	401	81	76	40	29	95
Timor–Leste	48,137	19,739	5,208	1,025	347	80	81	16	0	0
Total	116,919	71,791	71,723	71,784	22,661	9,237	10166	37,094	29,793	24,366

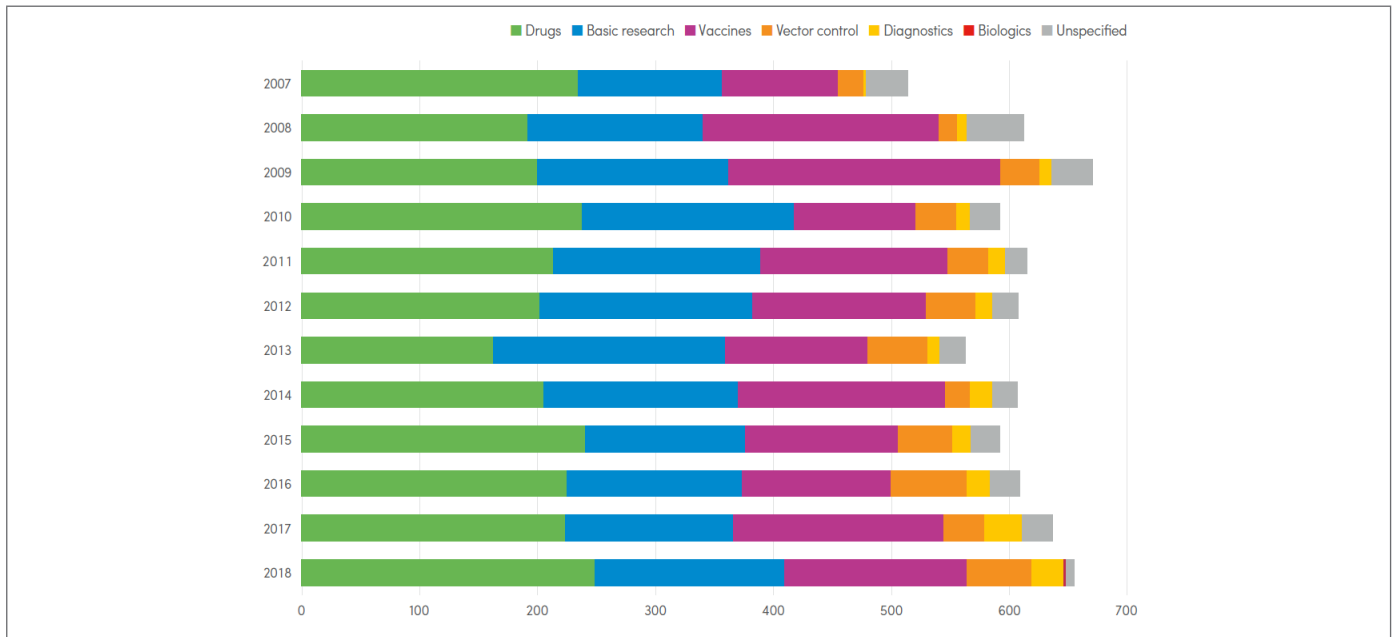


Figure 3. Funding for malaria-related R&D, 2007–2018, by product type (constant 2019 US\$) [2]

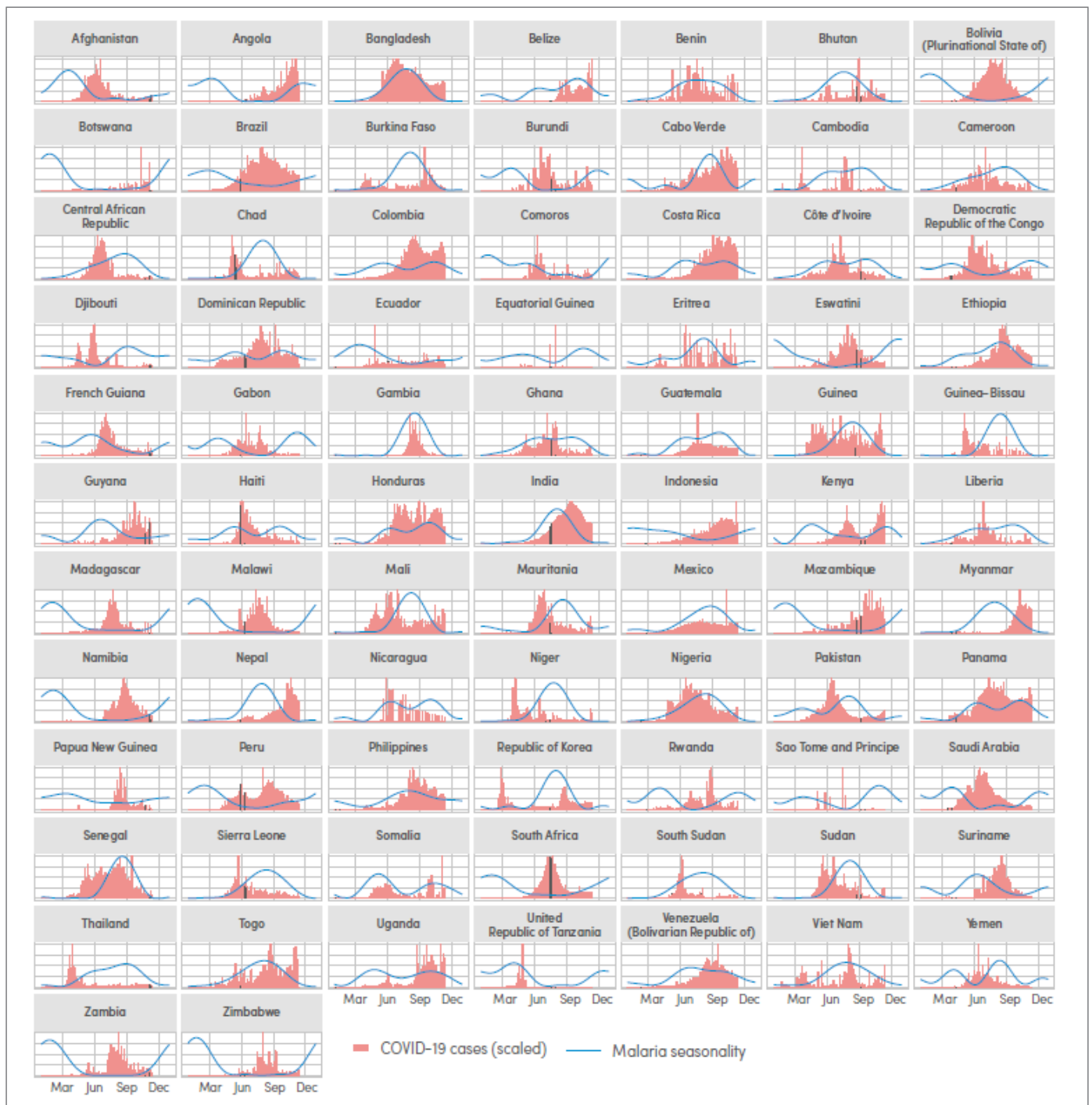


Figure 4. Malaria seasonality and trends of COVID-19 cases in malaria endemic countries and areas, 2020 (as of 23 November 2020) [2]