Annex 2 – A. Regional profile: West Africa

A. Confirmed malaria cases per 1000 population/parasite prevalence (PP), 2016

EPIDEMIOLOGY

Population at risk: 367 million
Parasites: *P. falciparum* (100%)

FUNDING, 2010–2016

Decreased from US$ 1.75 billion in 2010 to US$ 637.7 million in 2016 (64% decrease)
Proportion of domestic source in 2016: 8%
Regional funding mechanisms: Senegal River Basin Development Organization (OMVS):
Guinea, Mali, Mauritania and Senegal

REPORTED CASES AND DEATHS, 2010–2016

Cases (confirmed): Increased from 6.9 million in 2010 to 40.6 million in 2016 (488% increase)
Deaths: Decreased from 39,100 in 2010 to 18,700 in 2016 (52% decrease)

ESTIMATED CASES AND DEATHS, 2010–2016

Cases: Decreased from 110.7 million in 2010 to 109.9 million in 2016 (0.01% decrease)
Deaths: Decreased from 287,000 in 2010 to 224,000 in 2016 (22% decrease)

INTERVENTIONS, 2010–2016

Countries with ≥50% access to either LLINs or IRS in 2016: All countries except Cabo Verde and Mauritania
Number of RDTs distributed in 2016: 52.6 million
Number of ACT courses distributed in 2016: 44.2 million

ACCELERATION TO ELIMINATION

Countries with elimination programmes: Algeria and Cabo Verde
Zero indigenous cases for 3 consecutive years: Algeria
Zero indigenous cases in current year: Algeria
Certification in progress: no country

B. Malaria funding by source, 2010–2016

![Graph showing malaria funding by source, 2010–2016](image)

C. Malaria funding* per person at risk, average 2014–2016

![Graph showing malaria funding per person at risk, 2014–2016](image)

---

*Excludes cost related to health staff and out-of-pocket expenditure
About 367 million people living in the 17 countries are at high risk. With the exception of Algeria, malaria transmission is year-round and almost exclusively due to *P. falciparum* in most of the countries, with strong seasonality in the Sahelian countries.

The subregion had about 111 million estimated cases and 41 million reported confirmed cases. Some 19,000 malaria deaths were reported in 2016 but reporting rates were low, and the estimated number of deaths was about 224,000. Six countries accounted for 85% of the estimated cases: Nigeria (52%), Burkina Faso, Ghana, Mali and Niger (each contributing 7%) and Côte d’Ivoire (5%).

Algeria, with zero indigenous cases since 2013, is now eligible for certification of elimination by WHO. Cabo Verde is on target for malaria free status by 2020; however, cases increased from one indigenous case in 2012 to 48 cases in 2016. Senegal is on target for a 20–40% reduction by 2020. Overall, 14 countries had increased cases.

In line with the Nouakchott Declaration against malaria in the Sahelian countries, a meeting of malaria programme managers of seven countries (Cabo Verde, Chad, Gambia, Mali, Mauritania, Niger and Senegal), held in Monaco in June 2017, agreed to accelerate malaria elimination in these countries. Gambia, Mauritania and Senegal are reorienting their programmes towards malaria elimination.

Challenges include prioritization and sustainability of interventions, inappropriate application of larviciding, inadequate domestic financing and weak surveillance systems.
Annex 2 – B. Regional profile: Central Africa

**A. Confirmed malaria cases per 1000 population/parasite prevalence (PP), 2016**

![Map of Central Africa with confirmed malaria cases per 1000 population/parasite prevalence (PP), 2016]

**EPIDEMIOLOGY**

Population at risk: 168 million

Parasites: *P. falciparum* (100%)


**FUNDING, 2010–2016**

Increased from US$ 251.7 million in 2010 to US$ 303.6 million in 2016 (21% increase)

Proportion of domestic source in 2016: 5%

Regional funding mechanisms: none

**INTERVENTIONS, 2010–2016**

Countries with ≥50% access to either LLINs or IRS in 2016: All countries except Angola, Congo, Equatorial Guinea and Gabon

Number of RDTs distributed in 2016: 33.8 million

Number of ACT courses distributed in 2016: 32.1 million

**REPORTED CASES AND DEATHS, 2010–2016**

Cases (confirmed): Increased from 6.3 million in 2010 to 31.7 million in 2016 (404% increase)

Deaths: Increased from 40 000 in 2010 to 64 000 in 2016 (58% increase)

**ESTIMATED CASES AND DEATHS, 2010–2016**

Cases: Decreased from 43.7 million in 2010 to 38.3 million in 2016 (12% decrease)

Deaths: Decreased from 137 000 in 2010 to 88 000 in 2016 (36% decrease)

**ACCELERATION TO ELIMINATION**

Countries with elimination programmes: no country

Zero indigenous cases for 3 consecutive years: no country

Zero indigenous cases in current year: no country

Certification in progress: no country

**B. Malaria funding by source, 2010–2016**

![Bar chart showing malaria funding by source, 2010–2016]

**C. Malaria funding* per person at risk, average 2014–2016**

![Bar chart showing malaria funding per person at risk, average 2014–2016]

Global Fund, Global Fund to Fight AIDS, Tuberculosis and Malaria; UK, United Kingdom of Great Britain and Northern Ireland; USAID, United States Agency for International Development

* Excludes patient service delivery costs and out-of-pocket expenditure

* Excludes cost related to health staff and out-of-pocket expenditure
**KEY MESSAGES**

- About 168 million people living in the 10 countries are at high risk. Malaria transmission, almost exclusively due to *P. falciparum*, occurs throughout the year while malaria transmission is highly seasonal in Burundi, eastern Congo, northern Cameroon and northern Chad.

- The subregion had about 38 million estimated cases, with 32 million reported confirmed cases and 64,000 malaria deaths in 2016. The Democratic Republic of the Congo accounted for 48% of reported cases, followed by Burundi (26%) and Angola (12%). Nine countries saw increased cases during 2015–2016. Angola and Burundi alone reported 3.8 and 8.3 million confirmed cases in 2016, a 60% and 37% increase since 2015, respectively. The increases may be due to multiple factors, including inadequate intervention, climatic factors (El Niño) in 2015–2016 and improved reporting.

- Sao Tome and Principe has reported zero malaria deaths since 2014 but is on track for only 20–40% reduction in incidence by 2020. The testing rate in the subregion reached >81% except in Congo and Gabon (<60%). Cameroon and the Democratic Republic of the Congo conducted LLIN mass campaigns in 2016, but Congo, Equatorial Guinea and Gabon have failed to do so for the past 5 years owing to a shortage of international funding.

- Challenges include weak health systems, insufficient domestic and international funding, and malaria outbreaks in Angola and Burundi. Congo, Equatorial Guinea and Gabon are no longer eligible for Global Fund support, but domestic investment remains inadequate.
**Annex 2 - C. Regional profile: East and Southern Africa**

**Epidemiology**

Population at risk: 394.7 million
Parasites: P. falciparum (98%) and P. vivax (2%)

**Funding, 2010–2016**

Increased from US$ 820.3 million in 2010 to US$ 866 million in 2016 (5% increase)
Proportion of domestic source in 2016: 6%
Regional funding mechanisms: none

**Interventions, 2010–2016**

Countries with ≥50% access to either LLINs or IRS in 2016: All countries except South Sudan, United Republic of Tanzania (mainland) and Zimbabwe
Number of RDTs distributed in 2016: 87.9 million
Number of ACT courses distributed in 2016: 115 million

**Reported Cases and Deaths, 2010–2016**

Cases (confirmed): Increased from 13.5 million in 2010 to 41.5 million in 2016 (208% increase)
Deaths: Decreased from 70 700 in 2010 to 20 800 in 2016 (71% decrease)

**Estimated Cases and Deaths, 2010–2016**

Cases: Decreased from 49.9 million in 2010 to 46 million in 2016 (8% decrease)
Deaths: Decreased from 109 000 in 2010 to 89 000 in 2016 (18% decrease)

**Acceleration to Elimination**

Countries with elimination programmes: no country
Zero indigenous cases for 3 consecutive years: no country
Zero indigenous cases in current year: no country
Certification in progress: no country

**B. Malaria funding by source, 2010–2016**

![Graph showing malaria funding by source from 2010 to 2016.](image)

**C. Malaria funding* per person at risk, average 2014–2016**

![Graph showing malaria funding per person at risk.](image)

---

*Confirmed malaria cases per 1000 population/parasite prevalence (PP), 2016*

- Insufficient data
- 0
- 0–0.1
- 0.1–1.0
- 1.0–10
- 10–50
- 50–100
- 100–200
- >200
- >300
- Not applicable

Global Fund, Global Fund to Fight AIDS, Tuberculosis and Malaria; UK, United Kingdom of Great Britain and Northern Ireland; USAID, United States Agency for International Development

*Excludes patient service delivery costs and out-of-pocket expenditure

*Excludes cost related to health staff and out-of-pocket expenditure
KEY MESSAGES

- About 395 million people in the 11 countries are at high risk. Malaria transmission is almost exclusively due to P. falciparum (except in Ethiopia). It is highly seasonal in Ethiopia, Madagascar, Zimbabwe and coastal and highland areas of Kenya, and is stable in most of Malawi, Mozambique, South Sudan, Uganda, United Republic of Tanzania and Zambia.

- The subregion had 46 million estimated malaria cases, with about 42 million reported confirmed cases and 21,000 reported deaths in 2016. Mozambique, Uganda and United Republic of Tanzania accounted for more than 50% of the estimated cases. Estimated deaths decreased from 109,000 to 89,000 during 2010–2016.

- None of the countries in the subregion are on track for a 40% reduction by 2020. All countries except Ethiopia, Madagascar and Zimbabwe reported a substantial increase in cases during 2015–2016. Cases in Rwanda increased from 640,000 in 2010 to 3.4 million in 2016, and in Zanzibar (United Republic of Tanzania) from 2,300 to 5,000 during the same period. Uganda reported a twofold increase in confirmed cases during 2015–2016 compared to 2013. The increases may be due to inadequate vector control, climatic factors (El Niño) in 2015–2016 affecting south-eastern Africa and improved reporting. In all the countries except South Sudan, United Republic of Tanzania and Zimbabwe, >60% of the population had access to LLINs in 2016.

- Challenges include epidemics during the past 2 years, emergencies and inadequate response, inadequate funding, and weak surveillance systems in a number of the countries.
Annex 2 – D. Regional profile: Countries with low transmission in East and Southern Africa

**Epidemiology**

Population at risk: 15.7 million
Parasites: P. falciparum (98%) and P. vivax (2%)
Vectors: An. funestus, An. gambiae s.s. and An. gambiae

**Funding, 2010–2016**

Decreased from US$ 61.3 million in 2010 to US$ 37 million in 2016 (40% decrease)
Proportion of domestic source in 2016: 63%
Regional funding mechanisms: Southern Africa Malaria Elimination 8 Initiative

**Interventions, 2010–2016**

Countries with ≥50% access to either LLINs or IRS in 2016: Comoros, Eritrea and Namibia
Number of RDTs distributed in 2016: 363 000
Number of ACT courses distributed in 2016: 215 000

**Reported cases and deaths, 2010–2016**

Cases (confirmed): Decreased from 82 000 in 2010 to 56 000 in 2016 (32% decrease)
Deaths: Decreased from 242 in 2010 to 126 in 2016 (48% decrease)

**Estimated cases and deaths, 2010–2016**

Cases: Decreased from 146 000 in 2010 to 126 000 in 2016 (14% decrease)
Deaths: Decreased from 370 in 2010 to 320 in 2016 (13% decrease)

**Acceleration to elimination**

Countries with elimination programmes: Botswana, Comoros, Namibia, South Africa and Swaziland
Zero indigenous cases for 3 consecutive years: no country
Zero indigenous cases in current year: no country
Certification in progress: no country

---

**B. Malaria funding by source, 2010–2016**

---

**C. Malaria funding* per person at risk, average 2014–2016**

---

* Excludes patient service delivery costs and out-of-pocket expenditure
About 16 million people in the six countries are at high risk of malaria. Transmission is focal, almost exclusively due to *P. falciparum* (except in Eritrea) and highly seasonal.

The subregion had nearly 126 000 estimated malaria cases, with 56 000 reported confirmed cases and 126 reported deaths in 2016. The four frontline countries of the Elimination 8 (E8) initiative in southern Africa (Botswana, Namibia, South Africa and Swaziland) accounted for 55% of reported cases. Comoros and Eritrea are not part of the E8 initiative but are included here because of their very low transmission.

Comoros is on track for a ≥40% reduction by 2020, and Botswana, Eritrea and South Africa are on track for a 20–40% reduction. Namibia and Swaziland are not on track because of the increase in cases in recent years – in Namibia from only 556 cases in 2010 to 25 198 cases in 2016 (a 45 times increase), and in Swaziland a 30% increase during the same period. All the countries except Comoros reported more cases in 2016 than in 2015. Despite the increase in cases, malaria deaths remained relatively low in the subregion, owing to improved access to treatment. The increases are due to many factors, including inadequate vector control, climatic factors (El Niño) in 2015–2016 and improved reporting. All the countries except Comoros undertake focalized IRS combined with LLINs.

Challenges include inadequate coverage of vector control, importation risk from neighbouring countries and resurgence during the past 2 years.
Annex 2 – E. Regional profile: Region of the Americas

EPIDEMIOLOGY

Population at risk: 126.8 million
Parasites: P. falciparum and mixed (30%) and P. vivax (69%)

FUNDING, 2010–2016

Decreased from US$ 192.3 million in 2010 to US$ 167.4 million in 2016 (13% decrease)
Proportion of domestic source in 2016: 85%
Regional funding mechanisms: BMGF, Global Fund and USAID

INTERVENTIONS, 2010–2016

Countries with ≥50% coverage with either LLINs or IRS in 2016: Guatemala, Guyana and Nicaragua
Number of RDTs distributed in 2016: 847 000
Number of ACT courses distributed in 2016: 274 000

REPORTED CASES AND DEATHS, 2010–2016

Cases (confirmed): Decreased from 678 200 in 2010 to 562 800 in 2016 (17% decrease)
Deaths: Decreased from 190 in 2010 to 110 in 2016 (42% decrease)

ESTIMATED CASES AND DEATHS, 2010–2016

Cases: Decreased from 1 million in 2010 to 875 300 in 2016 (16% decrease)
Deaths: Decreased from 831 in 2010 to 653 in 2016 (21% decrease)

ACCELERATION TO ELIMINATION

Countries projected to eliminate malaria by 2020: Argentina, Belize, Costa Rica, Ecuador, El Salvador, Mexico, Paraguay and Suriname
Zero indigenous cases for 3 consecutive years: Argentina and Paraguay
Zero indigenous cases in current year: Argentina and Paraguay
Certification in progress: Argentina and Paraguay

B. Malaria funding by source, 2010–2016

C. Malaria funding* per person at risk, average 2014–2016

WORLD MALARIA REPORT 2017
KEY MESSAGES

- Of the 18 endemic countries, 12 are on target to achieve a ≥40% reduction in case incidence by 2020, while five are on target for a 20–40% reduction. Four countries (Nicaragua, Panama, Peru, and Venezuela [Bolivarian Republic of]) saw increases in 2016 compared to 2010. Cases in Colombia doubled between 2015 and 2016, despite earlier reduction. Brazil and Venezuela (Bolivarian Republic of) account for 65% of reported cases. The increase in cases in Peru from 2010 onwards has led to loss of the gains achieved since 2000.

- Despite increases in some countries, transmission is focalized; in particular, in Choco in Colombia, Loreto in Peru and Bolivar in Venezuela (Bolivarian Republic of). Similarly, nearly 45% of cases in Brazil come from 15 municipalities in Acre and Amazonas. Increases in other countries in 2016 are attributed to improved surveillance and focal outbreaks.

- Nine countries reported zero local *P. falciparum* cases for more than 3 years, Bolivia (Plurinational State of) and Guatemala reported <10, and Brazil reported a 72% decline between 2010 and 2016. Coverage of IRS and LLINs has declined in recent years while funding stagnated in the region.

- Two countries are in the process of certification for elimination. Nine countries (Belize, Costa Rica and El Salvador) reported <15 cases each in 2016. Efforts are under way to enhance access to diagnosis and treatment, investigation of cases, and adequate response.
Annex 2 - F. Regional profile: Eastern Mediterranean Region

A. Confirmed malaria cases per 1000 population/parasite prevalence (PP), 2016

EPIDEMIOLOGY
- Population at risk: 301.2 million
- Parasites: P. falciparum and mixed (63%) and P. vivax (37%)

FUNDING, 2010–2016
- Increased from US$ 108.6 million reported in 2010 to US$ 148.8 million in 2016 (37% increase)
- Proportion of domestic source in 2016: 38%
- Regional funding mechanisms: none

REPORTED CASES AND DEATHS, 2010–2016
- Cases (confirmed): Remained stable between 2010 (1.15 million) and 2016 (1.18 million)
- Country data in the health information system exclude community-based treatment except in Afghanistan
- Deaths: Remained stable between 2010 (1143) and 2016 (1142)

ESTIMATED CASES AND DEATHS, 2010–2016
- Cases: Increased from 3.92 million in 2010 to 4.25 million in 2016 (8% increase)
- Deaths: Increased from 7189 in 2010 to 8159 in 2016 (13% increase)

INTERVENTIONS, 2010–2016
- Countries with ≥50% coverage with either LLINs or IRS in 2016: Afghanistan, Sudan and Yemen
- Number of RDTs distributed in 2016: 17.1 million
- Number of ACT courses distributed in 2016: 4.3 million

ACCELERATION TO ELIMINATION
- Countries with elimination programmes: Iran (Islamic Republic of) and Saudi Arabia
- Zero indigenous cases for 3 consecutive years: Oman
- Zero indigenous cases in current year: Oman
- Certification in progress: no country

B. Malaria funding by source, 2010–2016

C. Malaria funding* per person at risk, average 2014–2016

* Excludes patient service delivery costs and out-of-pocket expenditure

* Excludes cost related to health staff and out-of-pocket expenditure

Global Fund, Global Fund to Fight AIDS, Tuberculosis and Malaria; UK, United Kingdom of Great Britain and Northern Ireland; USAID, United States Agency for International Development
KEY MESSAGES

- Fourteen countries in the region are free of indigenous malaria and are at the stage of prevention of re-establishment, and eight countries are malaria endemic. Estimated malaria incidence in the region has declined since 2010 but increased in 2016, when the region reported a total of 3.6 million cases (presumed and confirmed) of which 1.18 million were confirmed in health facilities.

- Iran (Islamic Republic of) and Saudi Arabia are targeting elimination by 2020. Trends in Iran (Islamic Republic of) have declined from 1847 to 81 cases between 2010 and 2016. In Saudi Arabia, the number of cases remained below 100 between 2010 and 2015, but rose to 272 in 2016 mainly due to an increase in population movement and difficulties to access border areas with Yemen. The general health service in these countries undertakes continued vigilance, and provides free-of-charge diagnosis and treatment to all imported cases.

- The other endemic countries (Afghanistan, Djibouti, Pakistan, Somalia, Sudan and Yemen) are at the burden reduction stage. Sudan is on target for a 20–40% reduction. The downward trend in Yemen was reversed in 2016. Afghanistan was on a downward trend until 2013 but cases have continuously increased since 2014.

- Challenges include coverage of key malaria interventions still below the universal target in most endemic countries, inadequate funding and reliance on external resources, difficult operational environments and population displacements, availability of quality technical staff particularly at subnational level, weak surveillance and health information system. These may have resulted in the overall increase in cases during 2014–2016 in some countries of the region.
A. Confirmed malaria cases per 1000 population, 2016

B. Imported malaria cases and associated deaths in Europe, 2010–2015

C. Trends of imported malaria cases in Europe, 2010–2015
KEY MESSAGES

Following interruption of indigenous malaria transmission in the WHO European Region in 2015, 10 countries that had been the last stronghold for malaria in the region – Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkey, Turkmenistan and Uzbekistan – confirmed their commitment to make all required efforts for maintaining their malaria-free status by signing the Ashgabat Statement: Preventing the re-establishment of malaria transmission in the WHO European Region. The Ashgabat Statement moves them forward from the 2005 Tashkent Declaration: "The move from malaria control to elimination" in the WHO European Region, which was signed by the same group of countries.

The Tashkent Declaration represented a turning point in efforts to achieve a malaria-free Europe, using the Regional Strategy: From malaria control to elimination in the WHO European Region 2006–2015, enabling the affected European countries to reduce the number of indigenous malaria cases from nearly 91 000 in 1995 to zero in 2015. The Ashgabat Statement outlines the commitment to control malaria importation, prevent the re-establishment of local transmission and rapidly contain any resurgence of the disease. As long as malaria continues to circulate globally, people travelling to and from malaria endemic countries can import the disease to Europe.

The Ashgabat Statement is serving as a platform for planning, implementing and monitoring activities to prevent the re-establishment of malaria in the region through enhanced vigilance especially of imported cases.
Annex 2 - H. Regional profile: South-East Asia Region

A. Confirmed malaria cases per 1000 population, 2016

**Epidemiology**

Population at risk: 1.35 billion

Parasites: *P. falciparum* and mixed (63%), *P. vivax* (35%) and other (2%)


**Funding, 2010–2016**

Decreased from US$ 239.7 million in 2010 to US$ 189.3 million in 2016 (21% decrease)

Proportion of domestic source in 2016: 48%

**Regional funding mechanisms:** Malaria Elimination in the Greater Mekong Region (MME): Myanmar and Thailand

**Reported cases and deaths, 2010–2016**

Cases (confirmed): Decreased from 2.6 million in 2010 to 1.4 million in 2016 (46% decrease)

Deaths: Decreased from 1403 in 2010 to 557 in 2016 (60% decrease)

**Estimated cases and deaths, 2010–2016**

Cases: Decreased from 26.2 million in 2010 to 14.6 million in 2016 (44% decrease)

Deaths: Decreased from 41,600 in 2010 to 26,600 in 2016 (36% decrease)

**Interventions, 2010–2016**

Countries with ≥50% coverage with either LLINs or IRS in 2016: Bhutan, Democratic People’s Republic of Korea, Indonesia, Myanmar, Nepal and Timor-Leste

Number of RDTs distributed in 2016: 25 million

Number of ACT courses distributed in 2016: 900,000

**Acceleration to elimination**

Countries with elimination programmes: Bangladesh, Bhutan, Democratic People’s Republic of Korea, India, Indonesia, Myanmar, Nepal and Thailand

Zero indigenous cases for 3 consecutive years: no country

Zero indigenous cases in current year: no country

Certification in progress: no country

**B. Malaria funding by source, 2010–2016**

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic*</th>
<th>Global Fund</th>
<th>World Bank</th>
<th>USAID</th>
<th>UK</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>100</td>
<td>150</td>
<td>50</td>
<td>30</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2011</td>
<td>100</td>
<td>150</td>
<td>50</td>
<td>30</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2012</td>
<td>100</td>
<td>150</td>
<td>50</td>
<td>30</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2013</td>
<td>100</td>
<td>150</td>
<td>50</td>
<td>30</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2014</td>
<td>100</td>
<td>150</td>
<td>50</td>
<td>30</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2015</td>
<td>100</td>
<td>150</td>
<td>50</td>
<td>30</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2016</td>
<td>100</td>
<td>150</td>
<td>50</td>
<td>30</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

*Excludes patient service delivery costs and out-of-pocket expenditure

**C. Malaria funding* per person at risk, average 2014–2016**

<table>
<thead>
<tr>
<th>Country</th>
<th>Domestic</th>
<th>Global Fund</th>
<th>World Bank</th>
<th>USAID</th>
<th>UK</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timor-Leste</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Myanmar</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Bhutan</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Thailand</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Democratic People’s Republic of Korea</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Nepal</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>India</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*Excludes cost related to health staff and out-of-pocket expenditure
Malaria is endemic in nine of the 11 countries of this region, accounting for nearly 70% of the burden outside the WHO African Region. Nearly 63% of the cases are due to \textit{P. falciparum}. India and Indonesia accounted for 80% and 16% of the reported cases, and 60% and 30% of malaria deaths in 2016, respectively.

Eight of the nine countries are on target to achieve a \(\geq 40\%\) reduction in case incidence by 2020, and India is on track for a 20–40\% reduction. Bangladesh has for the first time reported <5000 cases, Timor-Leste continued to report <100 cases and Bhutan reported only 15 indigenous cases in 2016.

Malaria deaths in the region decreased from 1403 in 2010 to 557 in 2016 (60\% reduction). Bhutan and Timor-Leste reported zero deaths since 2013 and 2015, respectively. Odisha, the highest endemic state of India, reported an increase in cases in 2016 (double the number in 2013). The other countries had no major outbreaks reported.

Maldives and Sri Lanka – both certified as malaria free in 2015 and 2016, respectively – have maintained their malaria free status. The region has the goal to become malaria free by 2030. According to Member States’ national strategic plans, Bhutan is aiming for malaria free status by 2018, Democratic People’s Republic of Korea, Nepal, Thailand and Timor-Leste by 2025, and the four remaining countries by 2030.*

Challenges include decreased funding, multiple ACT failures in the countries of the Greater Mekong subregion and vector resistance to pyrethroids. Efforts are under way to improve reporting from the private sector and NGOs, and case-based surveillance to accelerate elimination.

* The 2016 WHO report, \textit{Eliminating malaria}, identified three countries (Bhutan, Nepal and Timor-Leste) with the potential to eliminate malaria by 2020 if activities are accelerated.
Annex 2 – I. Regional profile: Western Pacific Region

A. Confirmed malaria cases per 1000 population, 2016

**Confirmed cases per 1000 population**

- Insufficient data
- 0
- 0–0.1
- 0.1–1.0
- 1.0–10
- 10–50
- 50–100
- >100
- Not applicable

**Vanuatu**

**Solomon Islands**

**Malaysia**

**Papua New Guinea**

**Cambodia**

**Lao People’s Democratic Republic**

**Philippines**

**Viet Nam**

**China**

**Republic of Korea**

### EPIDEMIOLOGY

**Population at risk:** 712 million

**Parasites:** *P. falciparum* and mixed (73%), *P. vivax* (26%) and other (1%)


### REPORTED CASES AND DEATHS, 2010–2016

**Cases (confirmed):** Increased from 259,500 in 2010 to 581,200 in 2016 (124% increase)

**Deaths:** Decreased from 910 in 2010 to 341 in 2016 (63% decrease)

### ESTIMATED CASES AND DEATHS, 2010–2016

**Cases:** Decreased from 1.78 million in 2010 to 1.63 million in 2016 (8% decrease)

**Deaths:** Decreased from 3767 in 2010 to 3341 in 2016 (11% decrease)

### INTERVENTIONS, 2010–2016

Countries with ≥50% coverage with either LLINs or IRS in 2016: Cambodia, Lao People’s Democratic Republic, Papua New Guinea, Philippines, Solomon Islands and Vanuatu

Number of RDTs distributed in 2016: 3.6 million

Number of ACT courses distributed in 2016: 950,000

### ACCELERATION TO ELIMINATION

Countries with <10,000 indigenous cases: China, Malaysia, Philippines, Republic of Korea, Vanuatu and Viet Nam

Countries with ≥10,000 indigenous cases: Cambodia, Lao People’s Democratic Republic, Papua New Guinea and Solomon Islands

Zero indigenous cases for 3 consecutive years: no country

Zero indigenous cases in current year: no country

Certification in progress: no country

### FUNDING, 2010–2016

Decreased from US$ 180 million in 2010 to US$ 90 million in 2016 (50% decrease)

Proportion of domestic source in 2016: 54%

Regional funding mechanisms: Malaria Elimination in the Greater Mekong Region (MME): Cambodia, China, Lao People’s Democratic Republic and Viet Nam

### B. Malaria funding by source, 2010–2016

- Domestic*
- Global Fund
- World Bank
- USAID
- UK
- Other

### C. Malaria funding* per person at risk, average 2014–2016

- Vanuatu
- Solomon Islands
- Malaysia
- Papua New Guinea
- Cambodia
- Lao People’s Democratic Republic
- Philippines
- Viet Nam
- China
- Republic of Korea

* Excludes cost related to health staff and out-of-pocket expenditure

* Excludes patient service delivery costs and out-of-pocket expenditure
KEY MESSAGES

■ Seven of the 10 malaria endemic countries are on target to achieve a ≥40% reduction in case incidence by 2020, while Lao People’s Democratic Republic is on track for a 20–40% reduction. Papua New Guinea and Solomon Islands, accounting for 92% of the reported cases, reported a >400% and >40% increase in cases in 2016, partly due to inadequate access to services and improved surveillance.

■ Malaria deaths decreased from 910 in 2010 to 341 in 2016 (63% reduction). Three countries (China, Republic of Korea and Vanuatu) reported zero malaria deaths in 2016. China, Malaysia and Republic of Korea are on course for elimination by 2020. China reported only three indigenous cases in 2016 from areas bordering Yunnan and Tibet. Transmission in Malaysia is limited to Sarawak and Sabah. The country is also facing increasing cases of \textit{P. knowlesi}. The Philippines has initiated subnational elimination in Mindanao, islands of Palawan and Tawi-Tawi.

■ Three countries of the Greater Mekong subregion – Cambodia, Lao People’s Democratic Republic and Viet Nam – are supported through the Regional Artemisinin-resistance Initiative (financed by the Global Fund) to eliminate \textit{P. falciparum} by 2025 and all species by 2030. These countries reported a 30% reduction of \textit{P. falciparum} since 2010.

■ Challenges include decreasing funding; multiple ACT failures; vector resistance to pyrethroids (Cambodia, China, Lao People’s Democratic Republic, Philippines and Viet Nam), DDT (all except Viet Nam) and organophosphates (China); and resurgence of malaria. Substantial efforts are under way to improve access to services, and case-based surveillance to accelerate elimination.