

## Malaria

Malaria is a tropical disease caused by a parasite transmitted by the bites of infected female *Anopheles* mosquitoes. After a period spent in the liver, malaria parasites multiply within red blood cells, causing symptoms such as fever, headache, and vomiting. Malaria is preventable and curable and recently WHO recommended a ground-breaking malaria vaccine for children at risk (WHO, 2021<sup>[1]</sup>). Still, if left untreated, malaria can become life-threatening by disrupting the blood supply to vital organs.

As part of the SDG targets, the UN set a goal to end the epidemic of malaria by 2030. In 2021, WHO certified China malaria free, a significant accomplishment for China and a major milestone for malaria elimination in the Western Pacific region. Malaysia reported zero malaria cases and is part of the WHO E-2025 Initiative to eliminate malaria by 2025, together with Korea and Vanuatu. Meanwhile, DPRK and Thailand were selected to participate in the E-2025 initiative towards the elimination of malaria by 2025 (WHO, 2021<sup>[2]</sup>).

About 2.31 billion people are at high risk in Asia-Pacific. Malaria-endemic countries and territories in the region are Papua New Guinea, Solomon Islands, Pakistan, India, Nepal, the Philippines, Indonesia, Myanmar, Lao PDR, Cambodia, Thailand, DPRK, China, Viet Nam, Bangladesh, Korea and Malaysia. Malaria transmission is intense in some areas of Papua New Guinea and the Solomon Islands; it is also intense in focal areas in the Greater Mekong Sub-region, including forested areas of Cambodia, Lao PDR and Viet Nam, where malaria disproportionately affects ethnic minorities and migrant workers. Malaria is also restricted in its distribution in Malaysia and the Philippines. Mobile and indigenous populations as well as infants, young children and pregnant women are especially vulnerable.

In 2020, South-East Asia accounted for 2% (5 million) of the estimated 241 million malaria cases globally. Presumed and confirmed cases were concentrated in Papua New Guinea, Myanmar and Pakistan (Figure 3.29, left panel). Death were estimated to be 9 000 in 2020, with the highest mortality rates in Papua New Guinea and the Solomon Islands (Figure 3.29, right panel) (WHO, 2021<sup>[2]</sup>).

For a balanced understanding, changes in the number of malaria cases should be viewed in parallel with changes in malaria incidence. The number of estimated cases per 1 000 population at risk showed a decline in all reporting Asia-Pacific countries and territories from 2010 to 2020, except for Papua New Guinea (Figure 3.30). After nearly four years of maintaining zero indigenous cases, and after intensive external evaluations including field assessments, Sri Lanka was certified by WHO as malaria-free in September 2016. The key interventions quoted for the successful reduction of malaria burden in Myanmar were placement of village health volunteers strategically at rural, remote, hard to reach and conflict areas, good coverage of insecticide-treated bed nets amongst at-risk population and improved access to artemisinin-based combination treatment (Mu et al., 2016<sup>[3]</sup>; Linn et al., 2018<sup>[4]</sup>).

The number of malaria cases not treated increased to around three out of ten in Papua New Guinea and the Philippines, whereas it decreased significantly to less than one in six in Nepal and Bangladesh from 2000 to 2020 (Figure 3.31). During the same period, the number of malaria cases not treated doubled to one in five in Myanmar, while they decreased by two-thirds in Cambodia and went down to almost zero in Viet Nam.

### Definition and comparability

Underreporting of malaria cases and deaths remain a major challenge in countries and territories with inadequate and limited access to health services and weak surveillance systems. The number of deaths was estimated by adjusting the number of reported malaria cases for completeness of reporting, the likelihood that cases are parasite positive, and the extent of health service use.

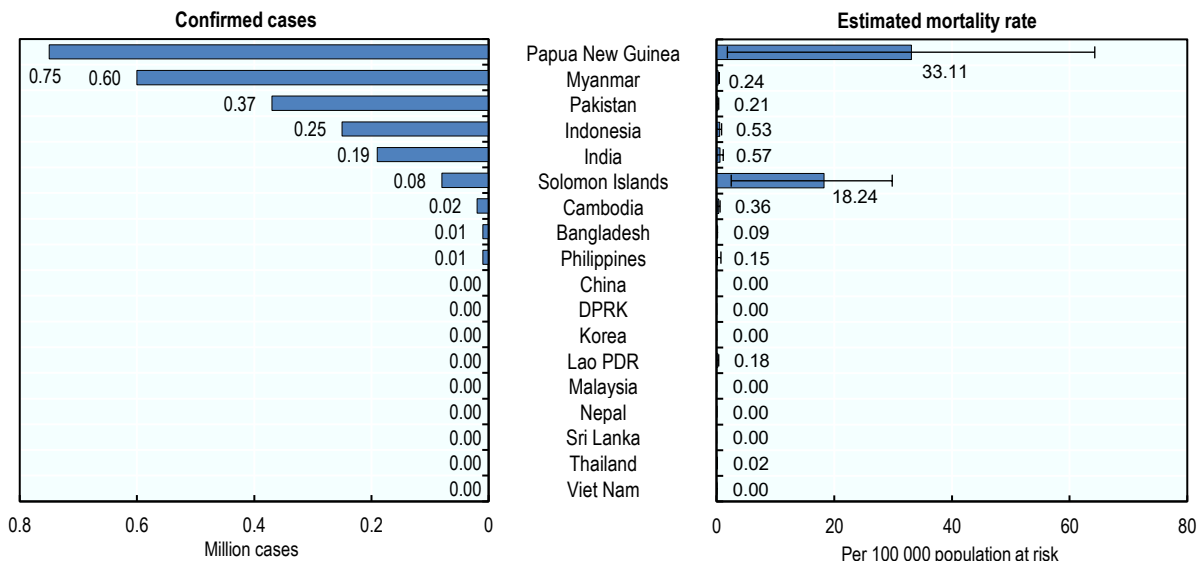
Population at risk is defined as population living in areas where malaria transmission occurs.

For China, Korea, Sri Lanka, Malaysia, DPRK, and Thailand, it is assumed that all cases are identified and treated. For the other countries and territories, the cases reported by the national malaria control programme are adjusted for diagnosis and reporting completeness, and for care seeking behaviour to estimate the proportion of malaria cases not treated.

## References

- Linn, N. et al. (2018), “Are village health volunteers as good as basic health staffs in providing malaria care? A country wide analysis from Myanmar, 2015”, *Malaria Journal*, Vol. 17/1, <https://doi.org/10.1186/s12936-018-2384-4>. [4]
- Mu, T. et al. (2016), “Malaria incidence in Myanmar 2005-2014: Steady but fragile progress towards elimination”, *Malaria Journal*, Vol. 15/1, <https://doi.org/10.1186/s12936-016-1567-0>. [3]
- WHO (2021), *WHO recommends groundbreaking malaria vaccine for children at risk*, <https://www.who.int/news/item/06-10-2021-who-recommends-groundbreaking-malaria-vaccine-for-children-at-risk>. [1]
- WHO (2021), *World Malaria Report 2021*, <https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2021>. [2]

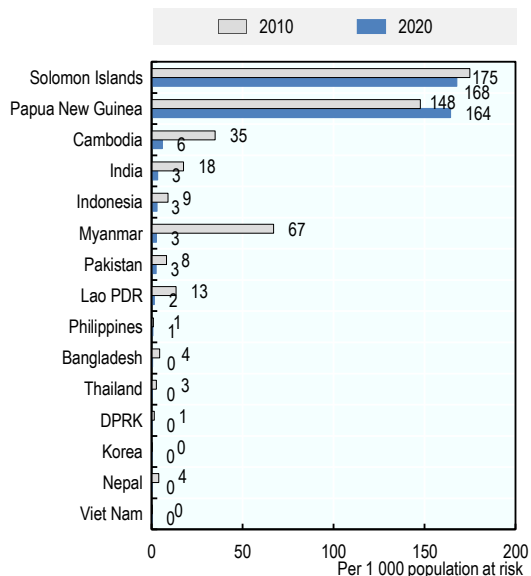
Figure 3.29. Confirmed malaria cases and estimated mortality rates, 2020



H represents lower and upper bounds.  
Source: World Malaria Report 2021.

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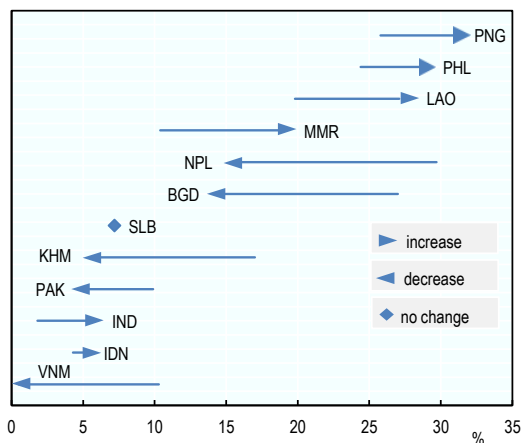
Figure 3.30. Changes in malaria incidence rate, 2010-20



Source: World Malaria Report 2021.

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Figure 3.31. Change in the proportion of malaria cases not treated, 2000-20



Source: World Malaria Report 2021.

StatLink <https://stat.link/abzksd>



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