

Malaria is a disease transmitted by the bites of infected mosquitoes. In the human body, the *Plasmodium* parasites multiply in the liver, and then infect red blood cells. If left untreated, malaria can become life-threatening by disrupting the blood supply to vital organs.

Malaria is endemic in many countries in the Asia/Pacific region. It is particularly associated with specific ecological zones such as forests in tropical and subtropical Southeast Asia, but it is also found in more temperate areas of the region. Among the population living in affected areas, mobile and migrant populations as well as infants, young children and pregnant women are especially vulnerable. Around 85% of those who die from malaria are children.

The disease especially affects the poor in remote rural areas who cannot afford treatment or have limited access to health care. Malaria causes significant economic losses; more than 1% of GDP in countries with high levels of transmission. In some heavy-burden countries, the disease accounts for up to 40% of public health expenditures, and a significant proportion of hospital admissions and outpatient health clinic visits.

Around three-quarters of the total population in Asia/Pacific countries are at risk of malaria. In 2010, there were 10 million probable and confirmed cases, but these are a fraction of the suspected number (WHO, 2011f). Most of the population at moderate-to-high risk live in Bangladesh, Cambodia, India, Indonesia, Myanmar, Papua New Guinea and Thailand, which together contribute 95% of confirmed malaria cases annually (Figure 1.11.1). The vast majority of confirmed cases occur in Pakistan and India, whereas death rates are estimated to be highest in Myanmar, Papua New Guinea and the Solomon Islands. India, Myanmar and Indonesia had high numbers of deaths in 2010.

Although a number of countries in the region such as DPR Korea, Sri Lanka and Thailand have shown a significant reduction in recorded incidence in recent years, the burden appears persistently high in the major endemic centres.

This is in part due to better detection rather than an increase in the underlying incidence (WHO, 2010a) (Figure 1.11.2).

Some key interventions to control malaria include prompt treatment with artemisinin-based combination therapies, the use of insecticide-treated nets by people at risk and indoor residual spraying with insecticide to control mosquitoes (Figure 1.11.3).

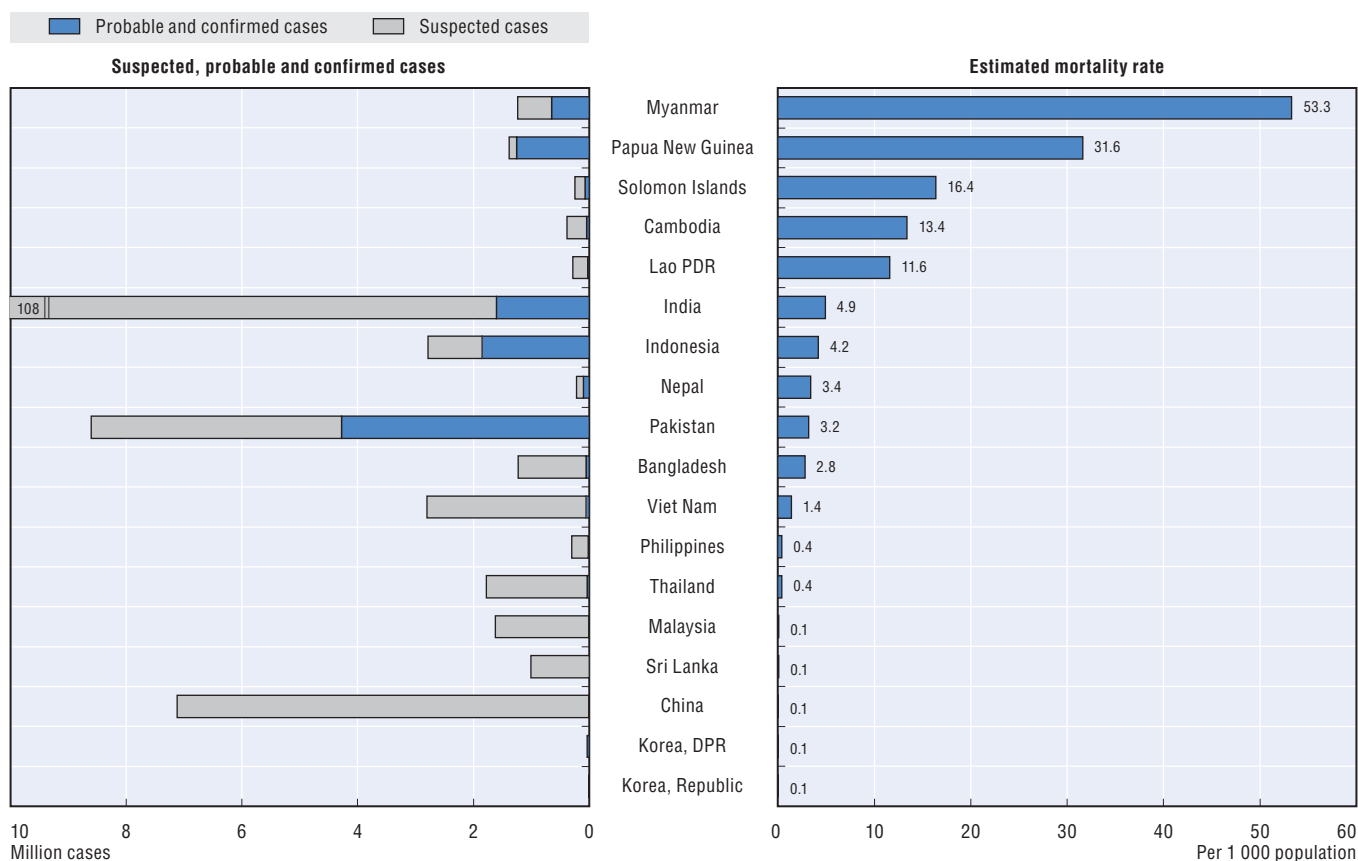
Overall mosquito net coverage exceeds 40% in the Solomon Islands, Malaysia, Sri Lanka and Papua New Guinea. But malaria control efforts are hampered by increased resistance of mosquitoes to insecticides, and uncontrolled population movement leading to more frequent epidemics. The growing problem of multidrug resistance is also more severe in Asia than in any other part of the world. Successful malaria control depends on long-term, sustained commitments by national governments.

Definition and comparability

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. In severe cases, the disease can be fatal. Malaria is preventable and curable, although no vaccine currently exists.

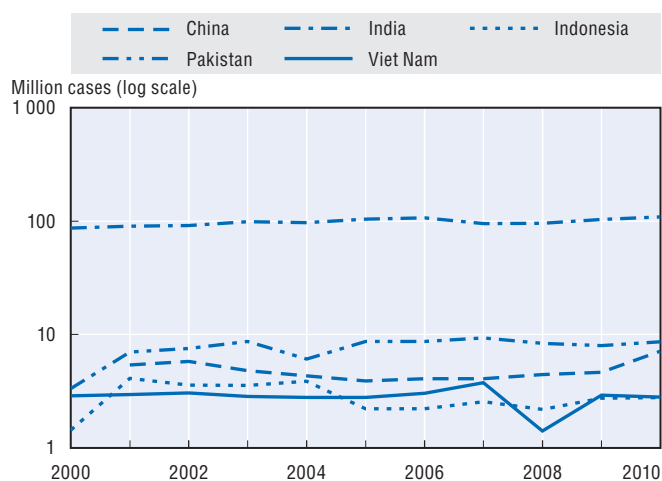
Microscopy or rapid diagnostic tests are recommended to confirm malaria infection in suspected patients. In addition to confirmed cases reported to health authorities, many probable cases occur annually. Underreporting of cases and deaths remain a major challenge in countries with inadequate and limited access to health services and weak surveillance systems (WHO, 2008a).

1.11.1. Malaria cases and deaths, 2010



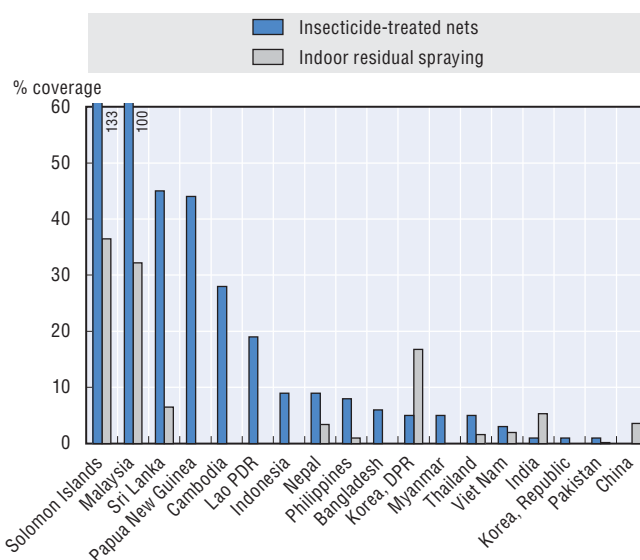
Source: WHO (2011f); Murray et al. (2012).

1.11.2. Suspected malaria cases, 2000-10



Source: WHO (2011f).

1.11.3. Estimated coverage of at-risk persons with malaria control interventions, 2010



Source: WHO (2011f).

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