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, although no vaccine currently exists (a vaccine against falciparum is currently being trailed in Africa though). 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. China, Malaysia, Nepal and the Republic of Korea have set an even closer target date of 2020 for elimination.

About 2.3 billion people live at some risk of malaria and 1 billion people are at high risk in Asia-Pacific. Malaria-endemic countries in the region are Papua New Guinea, Solomon Islands, Pakistan, India, Nepal, the Philippines, Indonesia, Myanmar, the Lao PDR, Cambodia, Thailand, DPR Korea, China, Viet Nam, Bangladesh, the Republic of Korea and Malaysia. Malaria transmission is intense in some areas of Papua New Guinea and the Solomon Islands, and 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 2014, there were 163 million suspected cases and 6.2 million probable or confirmed cases in Asian countries (WHO, 2015d), and confirmed cases were concentrated in Pakistan and India (Figure 3.29, left panel). Death rates are estimated to be highest in Papua New Guinea and the Solomon Islands (Figure 3.29, right panel).

For a balanced understanding, changes in the number of malaria cases should be viewed in parallel with changes in malaria incidence. The number of cases per 1,000 population at risk registered a decline in all reporting Asia-Pacific countries from 2010-16 (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 among at-risk population and improved access to artemisinin-based combination treatment (Mu et al., 2016; Linn et al., 2018).

Prompt treatment with artemisinin-based combination therapies (ACT) could save people infected with malaria. But Nepal and Pakistan reported delivering insufficient quantities of antimalarial medicines in 2014 (WHO, 2015d) (Figure 3.31).

### Definition and comparability

Underreporting of malaria cases and deaths remain a major challenge in countries 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.
3.29. Confirmed malaria cases and estimated mortality rates, 2016

H represents lower and upper bounds.

3.30. Changes in malaria incidence rate, 2010-16

Source: WHO GHO 2018.

3.31. Estimated coverage of at-risk persons with malaria control interventions, 2016
