



## Malaria

### Summary

- Although there are fewer deaths from malaria worldwide with the efforts so far, there were an estimated 219 million cases of infection and 435,000 deaths from malaria globally in 2017.
- JICA has assisted developing countries to improve their capacity of 1) vector control, 2) prevention, 3) prompt diagnosis and treatment, and 4) management of drug resistance.
- While JICA continues assisting in 1) to 3) above, we put focus on 4) management of drug resistance. If support toward elimination<sup>1</sup> is requested, JICA continuously assists the countries we have previously supported in malaria control in these interventions.

### Overview

WHO's "Global Technical Strategy for Malaria 2016-30"<sup>2</sup> states that between 2001 and 2013, a substantial expansion of malaria interventions contributed to a 47% decline in malaria mortality, averting an estimated 4.3 million deaths. In the WHO African Region, the malaria mortality rate in children under 5 years of age was reduced by 58%. However, there were an estimated 219 million cases of and 435,000 deaths from malaria globally (93% in the WHO African Region) in 2017<sup>3</sup>.

The Sustainable Development Goals set Target 3.3 to end the epidemics of malaria by 2030. The above-mentioned Strategy sets targets for 2030 to 1) reduce malaria mortality rates by 90% compared with 2015, 2) reduce malaria case incidence by 40% compared with 2015, 3) eliminate malaria from 30 countries in which malaria was transmitted in 2015 and 4) prevent re-establishment of malaria in all countries that are malaria-free (see Table below). Principles underlie the strategy such as combinations of interventions tailored to local contexts, country ownership and leadership, involvement and participation of communities, improved surveillance and equity in access to health services, especially for the most vulnerable and hard-to-reach populations. The strategy is built on three pillars below that guide global efforts.

Table: GOALS, MILESTONES AND TARGETS FOR MALARIA 2016–2030

Goals	Milestones		Targets
	2020	2025	2030
1. Reduce malaria mortality rates globally compared with 2015	At least 40%	At least 75%	At least 90%
2. Reduce malaria case incidence globally compared with 2015	At least 40%	At least 40%	At least 40%
3. Eliminate malaria from countries in which malaria was transmitted in 2015	At least 10 countries	At least 20 countries	At least 30 countries
4. Prevent re-establishment of malaria in all countries that are malaria-free	Re-establishment prevented	Re-establishment prevented	Re-establishment prevented

#### Pillar 1:

- Ensure universal access to malaria prevention, diagnosis and treatment.
- Vector control
- Preventive treatment of pregnant women, infants and children
- Diagnostic testing and treatment (including community-based)

#### Pillar 2:

- Accelerate efforts towards elimination and attainment of malaria-free status.
- Refocus programs
- Targeted vector control
- P. vivax-specific strategy

#### Pillar 3:

- Transform malaria surveillance into a core intervention.
- Surveillance in areas of high transmission

1: (malaria) elimination: the interruption of local transmission (reduction to zero incidence of indigenous cases) of a specified malaria parasite species in a defined geographic area.  
 2: [http://www.who.int/malaria/areas/global\\_technical\\_strategy/en/](http://www.who.int/malaria/areas/global_technical_strategy/en/)  
 3: WHO, World Malaria Report 2018

# Cooperation Policy

JICA has assisted developing countries with focus on improving their management capacity to conduct interventions at central and local levels, such as 1) vector control by long-lasting insecticidal net (LLIN) and indoor residual spraying (IRS), 2) prevention in pregnancy and infants, 3) prompt diagnosis and treatment by rapid diagnostic test (RDT) and Artemisinin-based combination therapy (ACT), and 4) management of resistance to antimalarial medicines.

While JICA continues assisting in 1) to 3) above, we put focus on 4) management of resistance to antimalarial medicines. We also take molecular epidemiology into account as a new area of assistance. If support toward elimination is requested, we continuously assist the countries we have previously supported in malaria control in these interventions. In those cases, we make use of assets from prior cooperative activities, such as laboratories, equipment, and trained human resources.

If there is need for prevention and treatment at a community level, JICA considers including interventions for malaria in cooperation for rural health, and maternal and child health. On the other hand, we take into account contribution to Universal Health Coverage by strengthening rural health and health finance from the viewpoint of malaria control.

## Cases

### [Myanmar: From control to elimination of malaria (2016-2020)]

In 2005, there were 510,000 cases of infection and 1,707 deaths from malaria in Myanmar. With external funding increased, the Myanmar government has enhanced management capacity to operate interventions. JICA has assisted them in stratification for targeted interventions, and establishment of a database and Geographic Information System (GIS) for epidemiological analysis and monitoring. As a result, cases and deaths has dramatically decreased to 180,000 cases and 37 deaths in 2015. At the East Asia Summit in 2014, the goal of malaria elimination by 2030 was agreed on. Asian countries have changed their strategy for malaria from control to elimination.

JICA Project for Development of Malaria Elimination Model has been offering support for capacity development of both policy makers at the central level and front-liners at the community level. As a nationwide expansion model, the project supported strengthening management capacity at the township level, transmission foci findings, and the supportive system for community health workers including logistics management of RDT and antimalarial medicines. We also support distributing LLINs and providing prompt diagnosis and treatment to high-risk population such as workers in slash & burn cultivation areas, and mines in forest, by community health workers in remote areas. We conduct epidemiological surveys to define receptivity. With these activities, an elimination model is being developed.

### [Laos: Investigation for a transmission mechanism of drug resistance (2015-2019)]

A SATREPS<sup>4</sup> project has conducted joint research for evidence useful for interventions to end the epidemic of malaria with Institute of Pasteur, Laos. In order to investigate the transmission mechanisms of antimalarial resistance, the researchers detect malaria parasites in human blood and vectors, and analyze genes related with antimalarial resistance. They obtain evidence of large-scale non symptomatic infections, which would be useful for interventions toward the elimination of malaria.



Myanmar: Community Health Worker in a village



Laos: A field survey

4: SATREPS: Technical Cooperation of JICA in collaboration with AMED/JST to promote international joint research by both Japanese research institutions and those of recipient countries, with a view to resolving global issues such as infectious diseases.