

## GREATER MEKONG REGION



### The President's Malaria Initiative (PMI)

Malaria prevention and control is a major U.S. foreign assistance objective, and PMI's strategy fully aligns with the U.S. Government's vision of ending preventable child and maternal deaths and ending extreme poverty. Under the PMI Strategy for 2015–2020, the U.S. Government's goal is to work with PMI-supported countries and partners to further reduce malaria deaths and substantially decrease malaria morbidity toward the long-term goal of elimination.

PMI support extends to the Greater Mekong Subregion (GMS), which is made up of five countries: Burma, Cambodia, Lao People's Democratic Republic, Thailand, and Vietnam.

### Regional and Country Context

Although considerable progress has been made in malaria control in the GMS during the past 10 years, malaria remains a major concern for the international community and ministries of health in the region. This is due primarily to the development and possible spread of resistance to artemisinin drugs, the principal component of the combination therapies for malaria that now are the first-line treatment for malaria throughout the GMS and the world. *Plasmodium falciparum* resistance to artemisinin drugs was first confirmed in western

Cambodia; treatment failures to artemisinin-based combination therapy (ACT) have been

reported from multiple sites on the Thai-Cambodian border; and an early warning sign of artemisinin resistance – prolongation of parasite clearance times – has been reported throughout the region.

The malaria situation across the GMS is very heterogeneous and ranges from countries on track for malaria elimination to areas still scaling up malaria control activities. Unlike most sub-Saharan African countries, the GMS must contend with at least 10 malaria-transmitting mosquito species, multiple parasite species (e.g., *P. vivax* is a major cause of malaria in GMS countries) and, most importantly, with multidrug resistance. Much of the malaria burden in the subregion is concentrated along border areas and in forest or forest-fringe areas.

PMI's support for malaria programs in the GMS differs from its support to countries in Africa both in its regional focus and its primary goal of responding to artemisinin resistance by eliminating *P. falciparum*. While PMI's initial efforts in the subregion were targeted at specific border areas between Burma, Cambodia, and Thailand, more recent evidence from the network of PMI-supported therapeutic efficacy monitoring sites suggests that artemisinin resistance is present throughout the region and is emerging *de novo* in some locations. In line with regional goals, PMI has shifted its approach to support regional elimination of *P. falciparum*, recognizing that this is the best and most sustainable approach to addressing multidrug resistance. PMI-supported activities include both regional/cross-cutting activities, such as surveillance for antimalarial drug resistance, antimalarial drug quality monitoring, and regional capacity building, as well as targeted malaria prevention and control activities with a country-specific focus.

### AT A GLANCE

Indicator	Thailand	Lao PDR	Vietnam
Population (2016) <sup>1</sup>	68.2 million	7 million	95.3 million
Population at risk of malaria (2014) <sup>2</sup>	50%	92%	74%
Malaria incidence/1,000 population at risk (2013) <sup>3</sup>	7	30	1
Confirmed malaria cases (2014) <sup>2</sup>	37,921	48,071	15,752
In-patient malaria deaths (2014) <sup>2</sup>	38	4	6
Artemisinin resistance status	Confirmed	Confirmed	Confirmed

1 U.S. Census Bureau, International Data Base 2015

2 World Health Organization (WHO), World Malaria Report 2015

3 WHO, World Health Statistics 2016

## Progress to Date

Although some of the standard indicators adopted in the GMS differ from those in Africa, several indicators, such as those measuring insecticide-treated net (ITN) ownership and use, remain applicable. The following table provides information on the major indicators used by PMI to measure progress in malaria prevention and treatment activities in the GMS. Please note that data on Burma and Cambodia are presented in separate country profiles.

Mekong Malaria Indicators	THAILAND			LAO PDR	VIETNAM	
	Migrant RDS 2012 <sup>1</sup>	TMS 2012 <sup>2</sup>	KAP survey 2015 <sup>3</sup>	LSIS 2012 <sup>4</sup>	MICS 2006 <sup>5</sup>	MICS 2011
Malaria prevalence	0%	0.1%	-	-	-	-
Proportion of households with at least one mosquito net	83-94%	92%	90%	94%	99%	96%
Proportion of households with at least one ITN	-	47%	51%	50%	19%	10%
Proportion of persons who slept under an ITN the previous night	1-2%	29%	39%	-	-	-
Proportion of children under five years old who slept under an ITN the previous night	-	33%	56%	43%	5%	9%
Proportion of pregnant women who slept under an ITN the previous night	-	36%	-	43%	-	11%

1. Migrant RDS – Migrant Respondent Driven Sampling survey conducted in Ranong.

2. TMS – Thailand Malaria Survey

3. KAP – Knowledge, Attitudes, and Practices survey

4. LSIS – Lao Social Indicator Survey

5. MICS – Multiple Indicator Cluster Survey

## PMI Contributions Summary

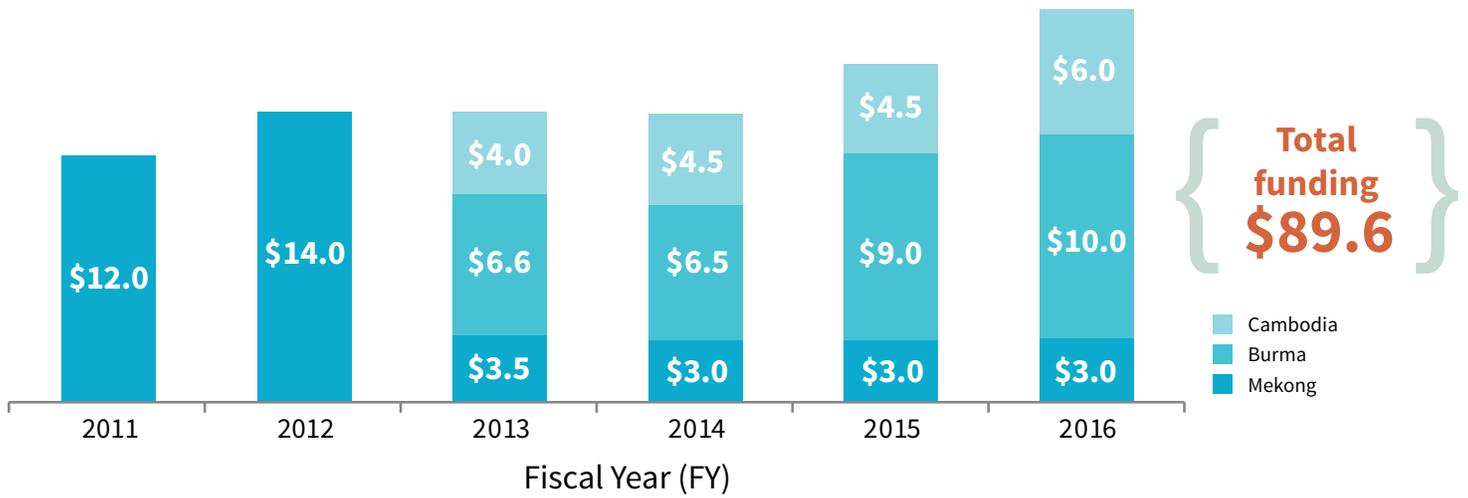
The Greater Mekong Subregion has received PMI funding since FY 2011. With support from PMI and its partners, malaria control interventions are being implemented, and vital commodities are being distributed to vulnerable populations. The following table shows PMI contributions for fiscal year 2015 and cumulatively across the key intervention areas.

		PMI CONTRIBUTIONS <sup>1</sup>	FY 2015	CUMULATIVE
Insecticide-treated Nets		ITNs procured	200,000	1,332,673
		ITNs distributed	207,554	419,814
		ITNs procured by other donors and distributed with PMI support	0	1,299,521
Rapid Diagnostic Tests		RDTs procured	0	1,112,200
		RDTs distributed	160,200	498,651
Artemisinin-based Combination Therapy		ACTs procured	58,140	292,330
		ACTs distributed	27,463	44,878
Health Workers		Health workers trained in treatment with ACTs	70	n/a <sup>2</sup>
		Health workers trained in malaria diagnosis	114	n/a <sup>2</sup>

1 The data reported in this table are up-to-date as of September 30, 2015. Please refer to Appendix 2 of the [2016 PMI Annual Report](#) for year-by-year breakouts of PMI contributions.

2 A cumulative count of individual health workers trained is not provided since some health workers were trained on more than one occasion.

## PMI Funding (in millions)



For details on FY 2016 PMI activities in the GMS, please see the [Greater Mekong Subregion Malaria Operational Plan](#).