

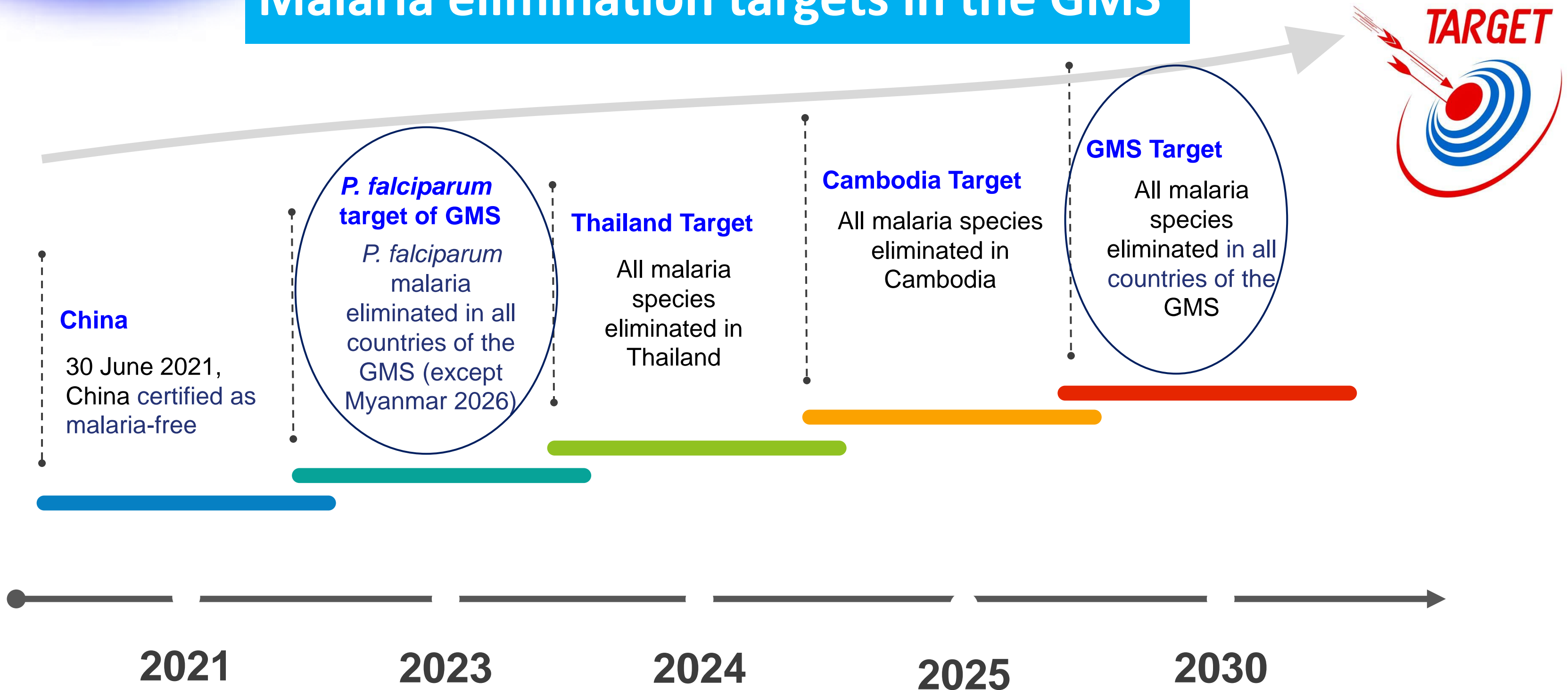
NEXT STEPS? AN OVERVIEW OF THE SUSTAINABLE STRATEGIES TO ACHIEVE THE MALARIA ELIMINATION GOAL

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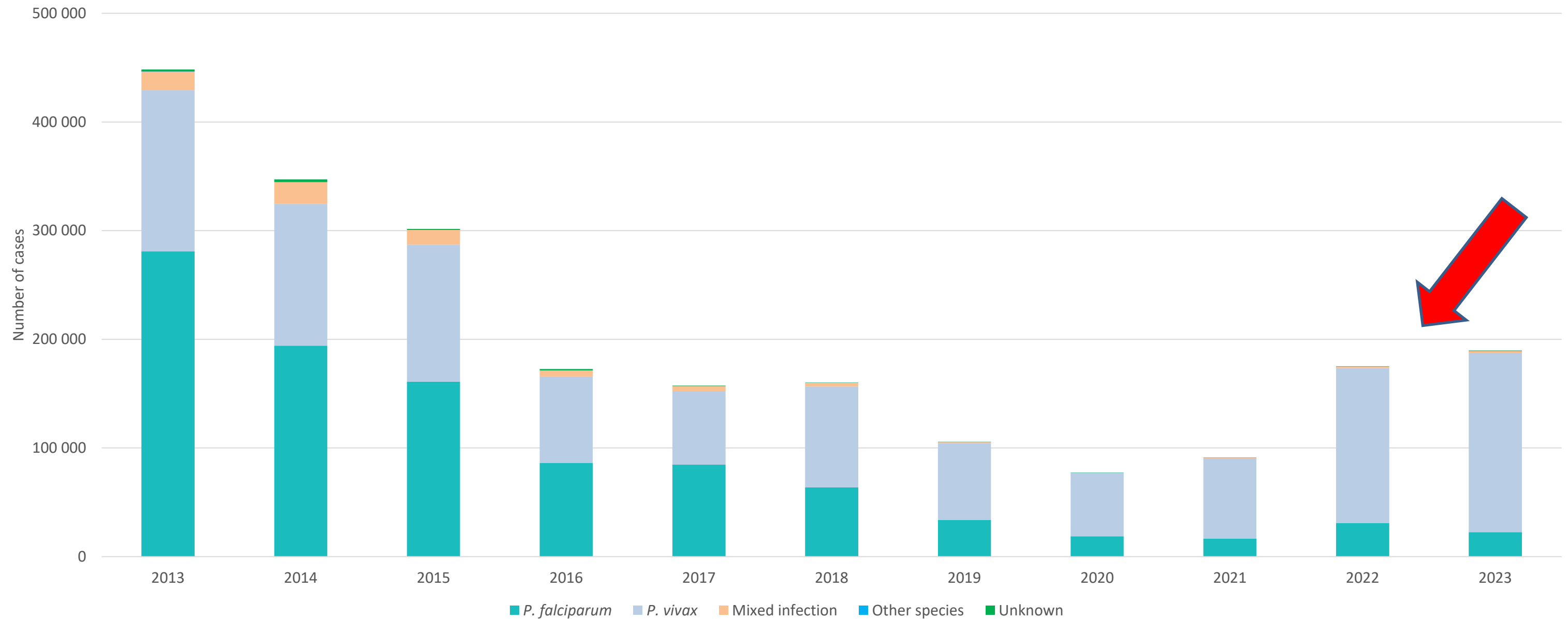
Outline

- **Malaria elimination target in the Greater Mekong subregion (GMS)**
- **Malaria burden in the GMS**
- **Strategy to eliminate falciparum malaria in the GMS**
- ***P. vivax* elimination**
- **Outbreaks**
- **Other species elimination**
- **Sustainability**
- **Challenges**

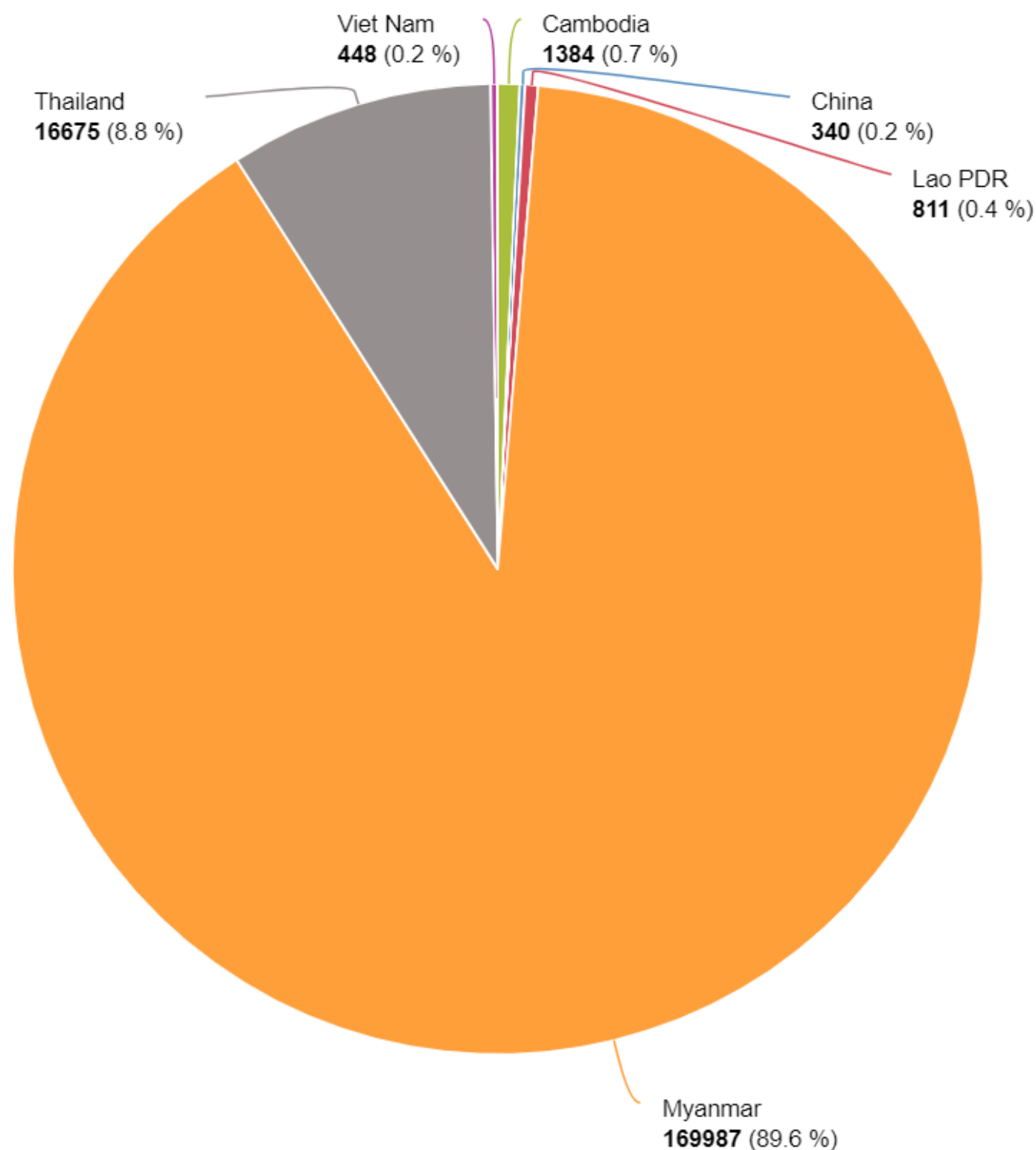
Malaria elimination targets in the GMS



Progress in malaria elimination in the GSM

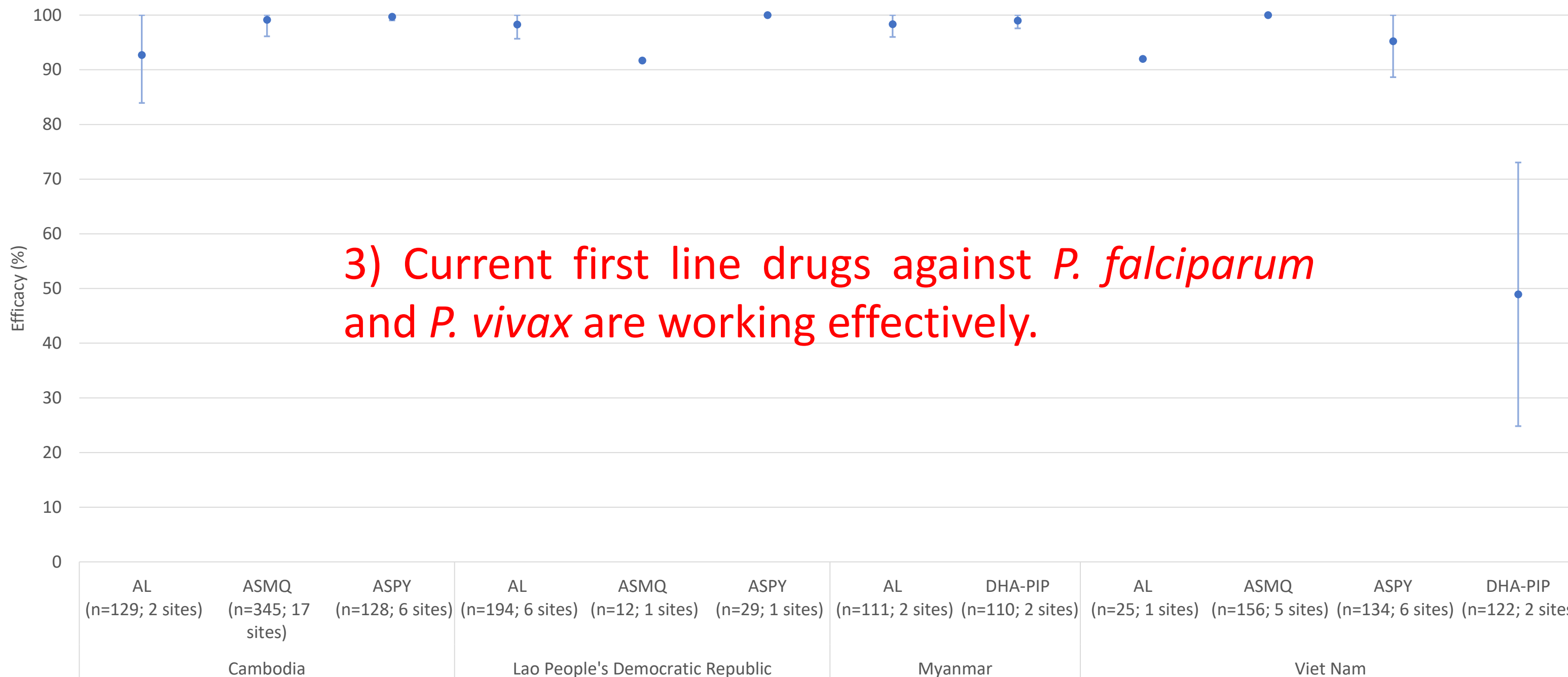


Malaria case distribution in GMS, 2023



- 1) Cambodia, Lao PDR and Viet Nam are approaching *P. falciparum* elimination;
- 2) The situation in Myanmar has delayed; malaria elimination in Myanmar and Thailand and threatens to undo progress across the GMS.

Drug efficacy of *P. falciparum* in the GMS, 2018-2023



3) Current first line drugs against *P. falciparum* and *P. vivax* are working effectively.

P. falciparum elimination strategy

DHA-piperaquine > > Artesunate-mefloquine

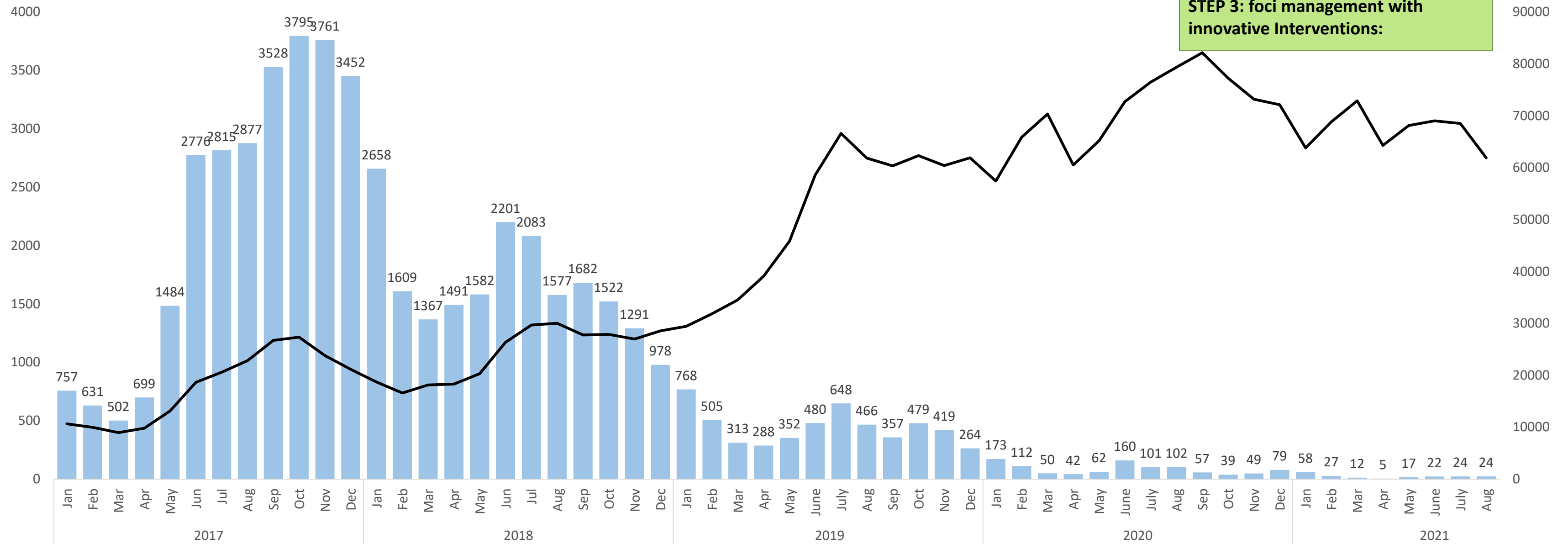
Primaquine single dose

Village malaria workers RE-ESTABLISHED

STEP1: Intensification plan - Active case detection by mobile malaria workers

STEP 2: case foci-based elimination

STEP 3: foci management with innovative Interventions:



Last mile (accelerator) interventions

- **VMW/MMW:** The recruitment and training of a village malaria worker (VMW) or mobile malaria worker (MMW) to provide passive case detection within the focus, if not already existing.
- **LLINs + LLHINs:** The top up long-lasting insecticide-treated nets (LLINs) and continual distribution of long-lasting insecticide-treated hammock nets (LLHINs) to high-risk populations.
- **Targeted Drug Administration (TDA):** The distribution of artesunate-mefloquine or artesunate-pyronaridine to males between 15 (-7) and 49 years old within the focus for two consecutive months at the beginning of response activities.
- **Active Fever Screening (AFS):** Weekly fever screening to all high-risk populations within the focus.
- **Intermittent Preventative Treatment for Forest Goers (IPTf):** The provision of artesunate-mefloquine or artesunate-pyronaridine to males between 15 and 49 years old who plan on working in nearby forested areas within the following month.

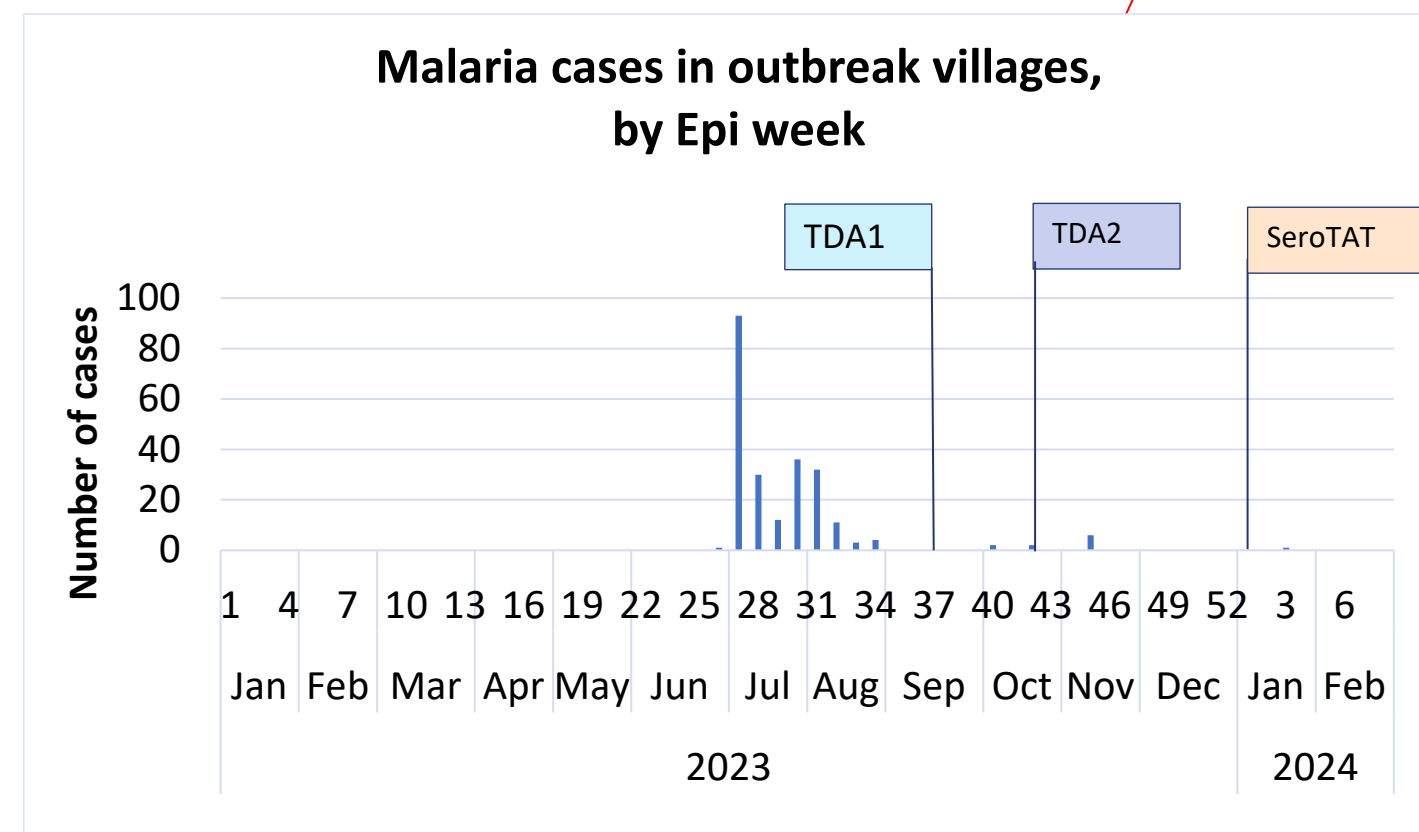
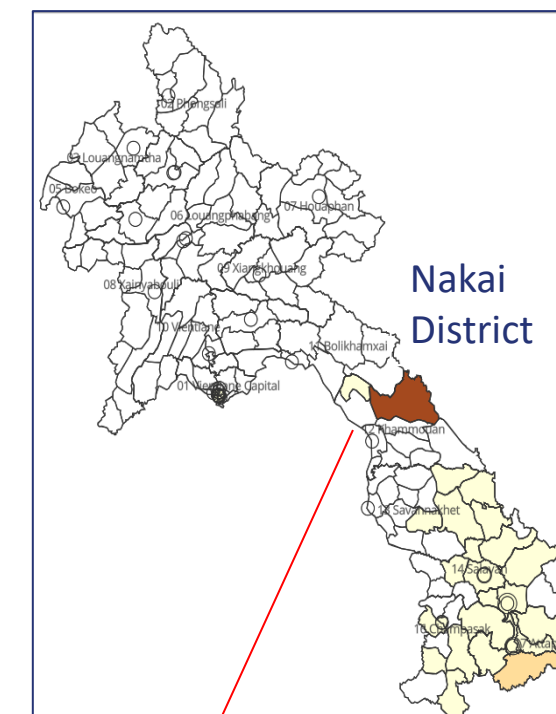
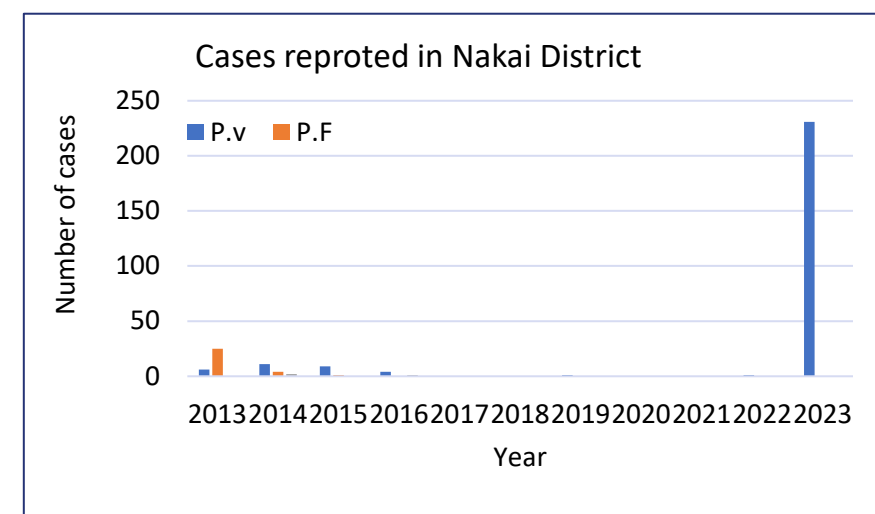
		RECEPTIVITY	
		R0	R1
VULNERABILITY	V0	VMW/MMW	LLINs + LLHINs TDA AFS – IPT <i>f</i>
	V1	LLIN + LLHINs AFS – IPT <i>f</i>	LLINs + LLHINs TDA AFS – IPT <i>f</i>

P. vivax elimination

- *P. vivax* causes most of the malaria cases in the GMS, and elimination of *vivax* is possible.
- Implementing and scaling up radical cure coverage is essential to reduce the malaria burden and drain the transmission reservoir:
 - the deployment of radical cure includes PQ 7d or over 8 weeks or tafenoquine (TQ);
 - TQ only registered in Thailand and can be associated with chloroquine only.
- **Ensuring access to G6PD testing** remains a challenge, especially for hard-to-reach populations.
- *P. vivax* elimination requires new approaches and strategies, including:
 - innovation strategies CQ MDA +/- PQ; seroTAT:
 - Lai Chau (Viet Nam) 3 rounds of CQ led to 94% reduction of *vivax* incidence.

Outbreak in Lao PDR

- Nakai District in Khammuane Province, Lao PDR has been considered malaria-free.
- Between 1 July to 16 Aug 2023, 222 *P. vivax* cases in 3 villages, total population ≈ 1,400.
- Remote ethnic minority community, traditional healers and late health seeking behavior.
- Following TDA transmission has drastically reduced.
- However, some cases continue to be reported in both people without previous infection and those with previous infection.
- A seroprevalence survey was conducted to treat those with recent exposure (seroTAT) and to understand the drivers of transmission.



Outbreak in Viet Nam

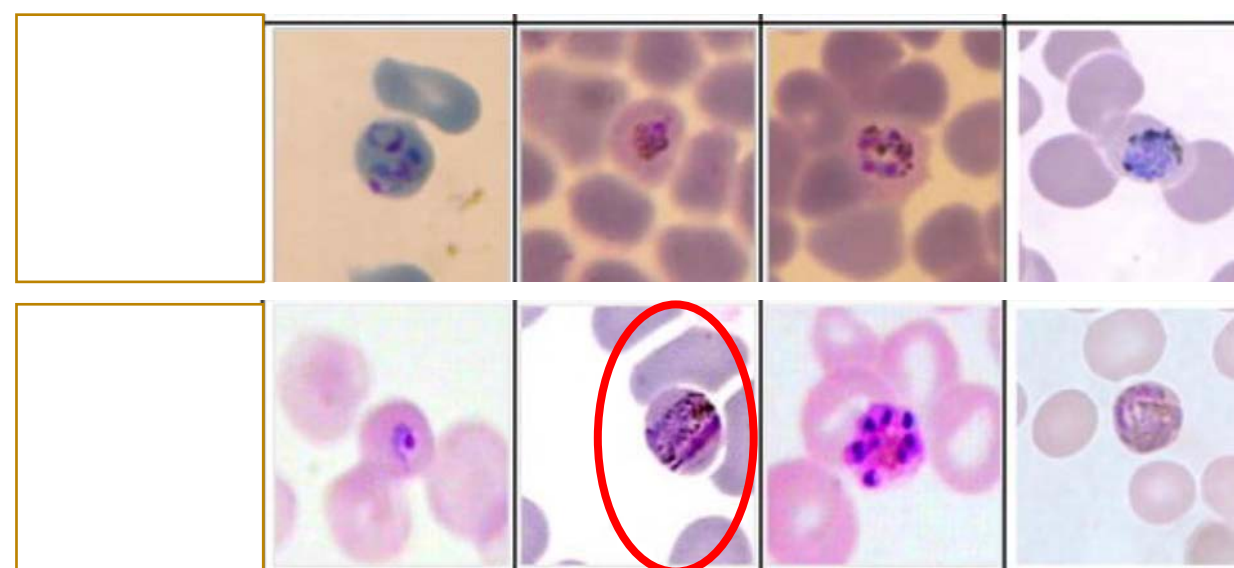
- Outbreak in Khanh Vinh district, Khanh Hoa province, June 2023 with 199 cases all *P. vivax* or *P. malariae*.
- Early 2024, outbreak of *P. falciparum*.
- Number of cases increased of 180% compared to 2023.
- Activities were mainly oriented towards spaying (but 80% of the patients are forest goers!).
- Implementation of TDA and IPTf on-going.

- 4) Asymptomatic carriers as a source of transmission;
- 5) Outbreaks remain a threat for elimination and need to tackle immediately.



Other species elimination

- WHO certification of malaria elimination is official recognition of the elimination for all four human malaria parasite species (*P. vivax*, *P. falciparum*, *P. malariae* and *P. ovale*) in the country as a whole.
 - *Zoonotic malaria: Certification of malaria elimination by WHO requires the elimination of the four main human parasite species: P. falciparum, P. vivax, P. ovale and P. malariae. Certification might be granted to countries where cases of other Plasmodium species are reported if the risk to humans is assessed as negligible. Exact threshold and the requirements are yet to be defined.*
- *P. knowlesi* is deadly diseases, but *P. knowlesi* and *P. malariae* can be asymptomatic.
- *P. knowlesi* and *P. malariae* are not detected by RDTs and difficult to diagnose at microscopy.



6) Countries need to set up reference laboratory (ies) as part of Prevention of Re-establishment guidelines

Sustainability

- Anticipated declines in donor financing for malaria could result in disruptions to the health workforce, data and surveillance systems, supply chains, programme governance and programme management, and changes in the level of political will and attention to malaria.
- Sustainability becomes top priority in the GMS elimination agenda:
 - Global fund (RAI5E?), APLMA, USCF, CSOs.
- MME bulletin 11, 2023
 - Sustainability planning in Thailand with a Prevention of Re-establishment focus.
 - Sustainability and transition readiness assessments in Cambodia and Viet Nam.
 - <https://www.who.int/initiatives/mekong-malaria-elimination-programme>

7) Elimination can be sustained through national Prevention of Re-establishment framework.



Eliminating malaria
in the Greater
Mekong subregion
by reaching
the unreached

Challenges in malaria elimination

- **Procurement delays and wastage:** As malaria cases decrease and elimination progresses, there may be challenges in procuring enough antimalarial medicines.
- **Integration of VMWs** into primary health care and universal health coverage systems is vital for sustainable malaria control.
- **Reaching hard-to-reach populations:** Achieving universal coverage of malaria diagnosis and treatment services is essential for malaria elimination.
- **Loss of political interest** and insufficient political engagement: Sustaining the momentum of malaria elimination efforts requires unwavering commitment and support from the highest levels of government.
- **The need for cross-border collaboration:** Malaria knows no boundaries, and effective cross-border collaboration is vital in addressing outbreaks and epidemics.
- **Sustainability of malaria surveillance,** control, diagnosis and treatment: Sustainable funding is essential to support ongoing malaria elimination efforts.





MALARIA FREE MEKONG