Malaria Elimination in Greater Mekong Subregion (GMS)

Rotary Club Geneva International

30 April 2020

Global **Malaria** Programme

World Health Organization

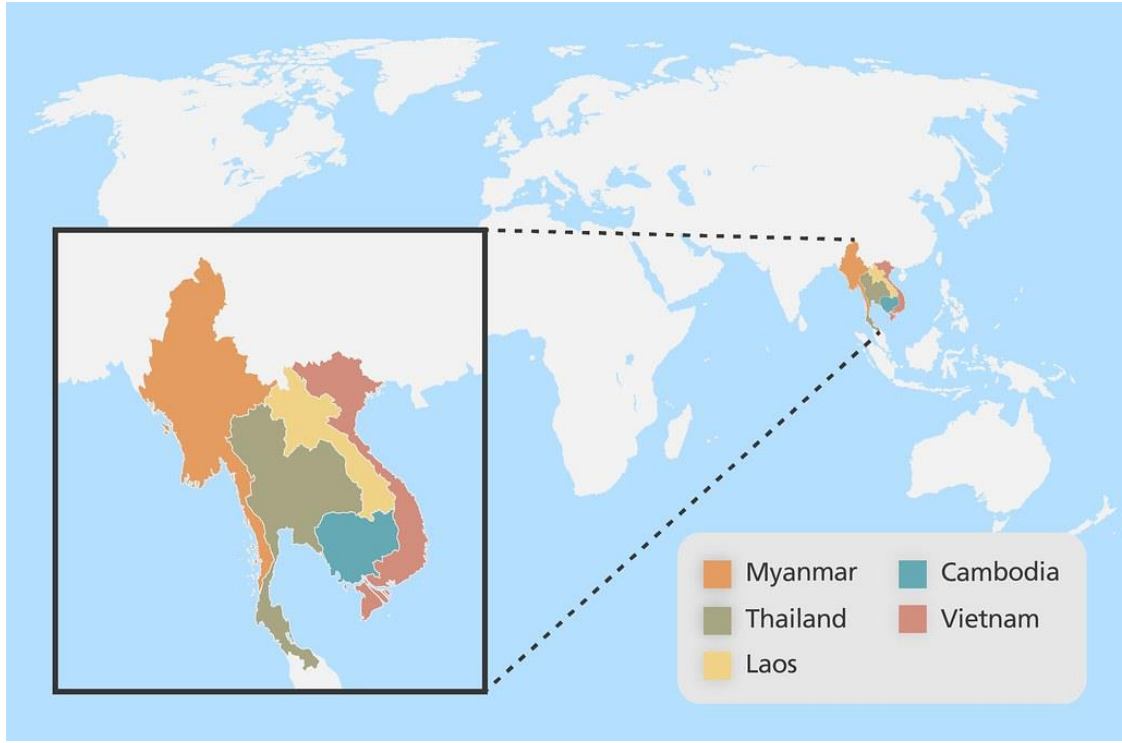
Mekong Malaria Elimination (MME) :Background

2006 Early warning signs of *P. falciparum* resistance to artemisinin detected in Cambodia

2008 Confirmed reports of *P. falciparum* resistance to artemisinin along the Cambodia-Thailand border

2015 GMS Ministers of Health (China, Cambodia, Thailand, Myanmar, Lao PDR Viet Nam) adopted the Strategy for malaria elimination in the Greater Mekong Subregion 2015-2030

2018 GMS Ministers of Health signed the call for actions to eliminate malaria in the GMS before 2030, renewing its commitment



WHO GMS Strategic Plan: Key Interventions

The three key interventions are:

1. Early detection of malaria cases and treatment
2. Disease prevention in transmission areas
3. Malaria case and entomological surveillance

The two supporting elements are:

1. Expanding research for innovation and improved delivery of services
2. Strengthening the enabling environment.

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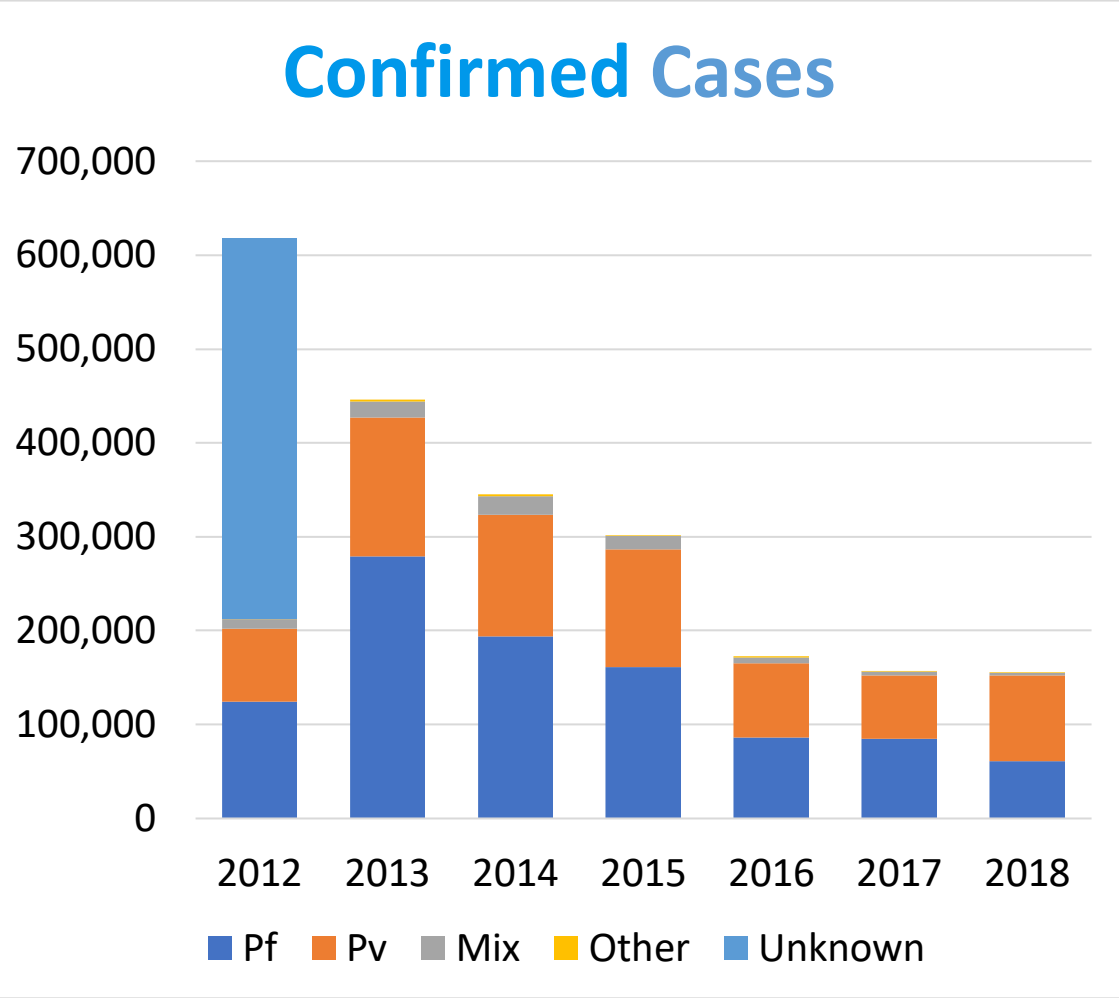
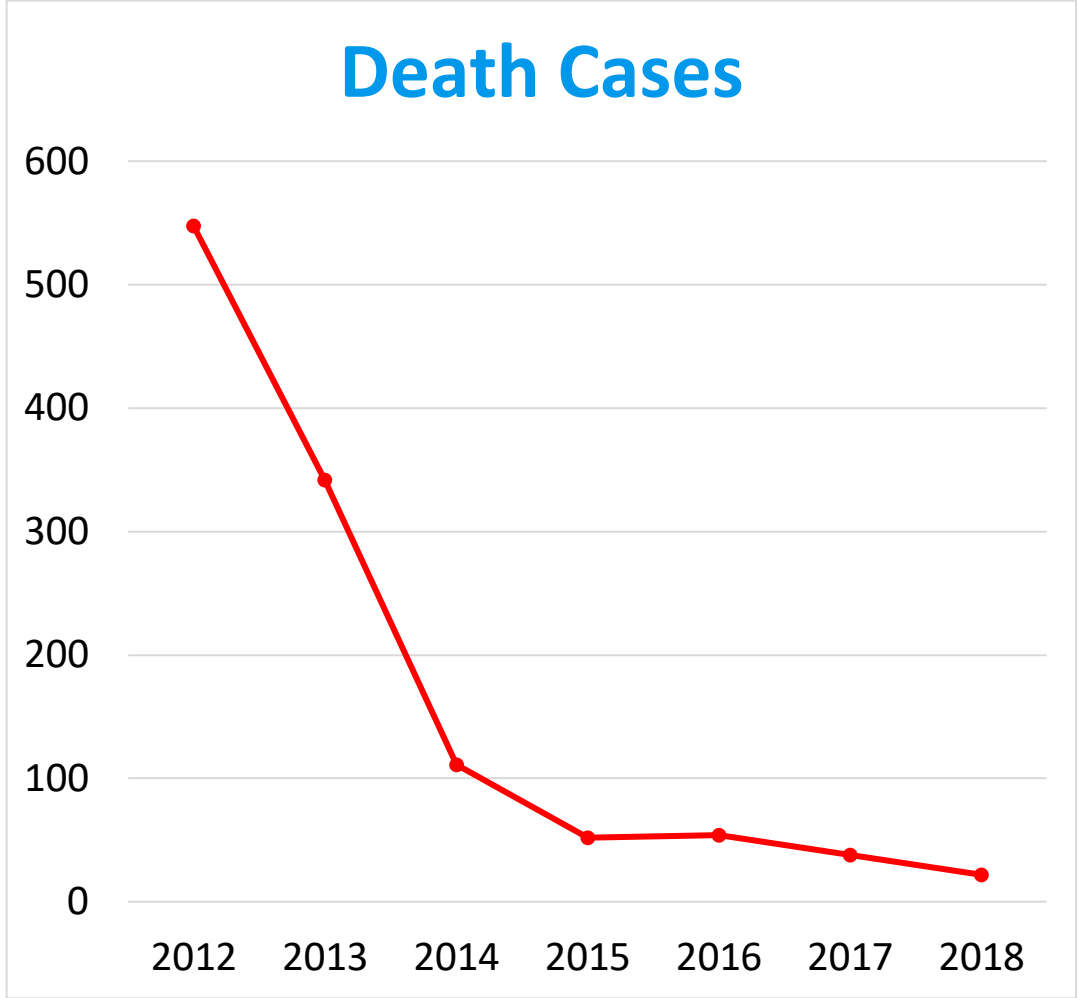
Malaria cases in the GMS (2012-2018)





Source: WHO subregional database

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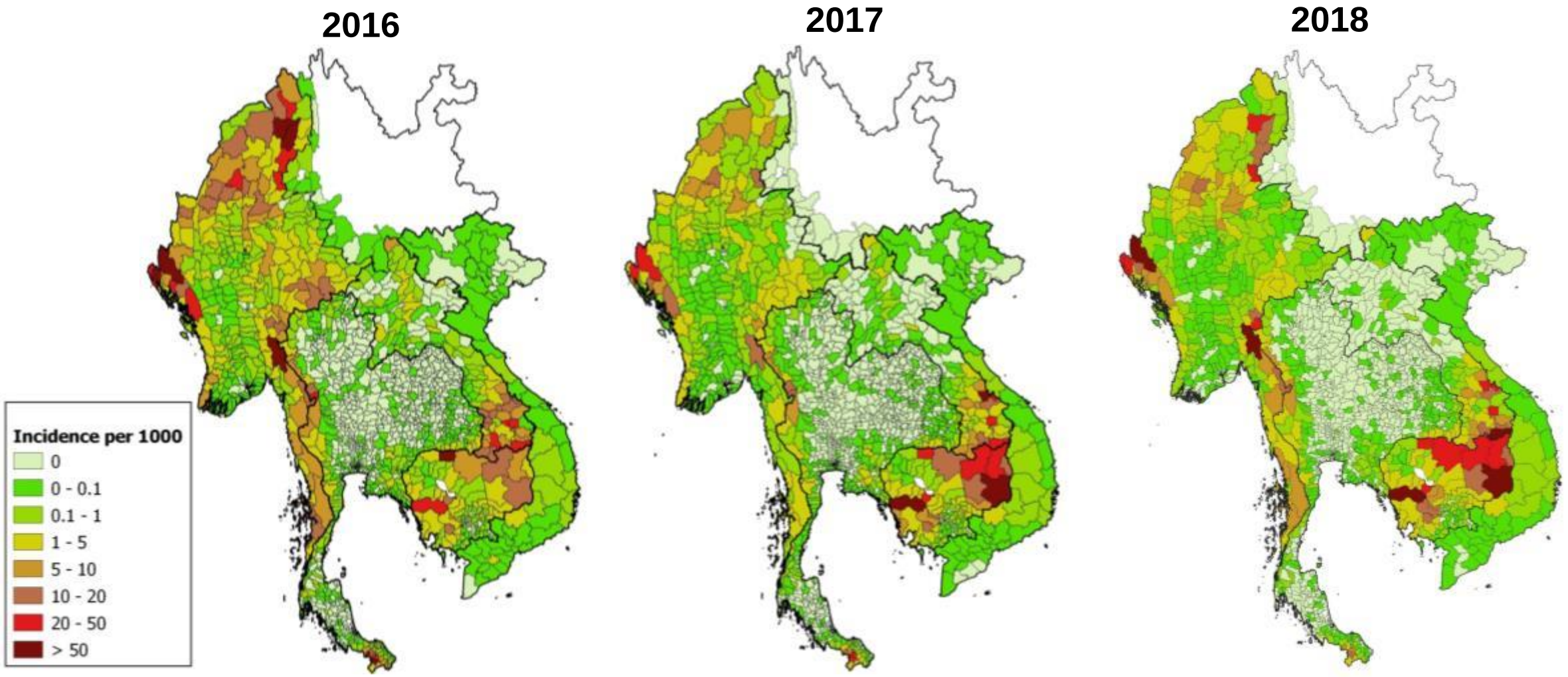
Malaria Case Distribution in GMS

Annual Parasite Incidence (API) by District*



Source: WHO subregional database. *Viet Nam data are provincial level.

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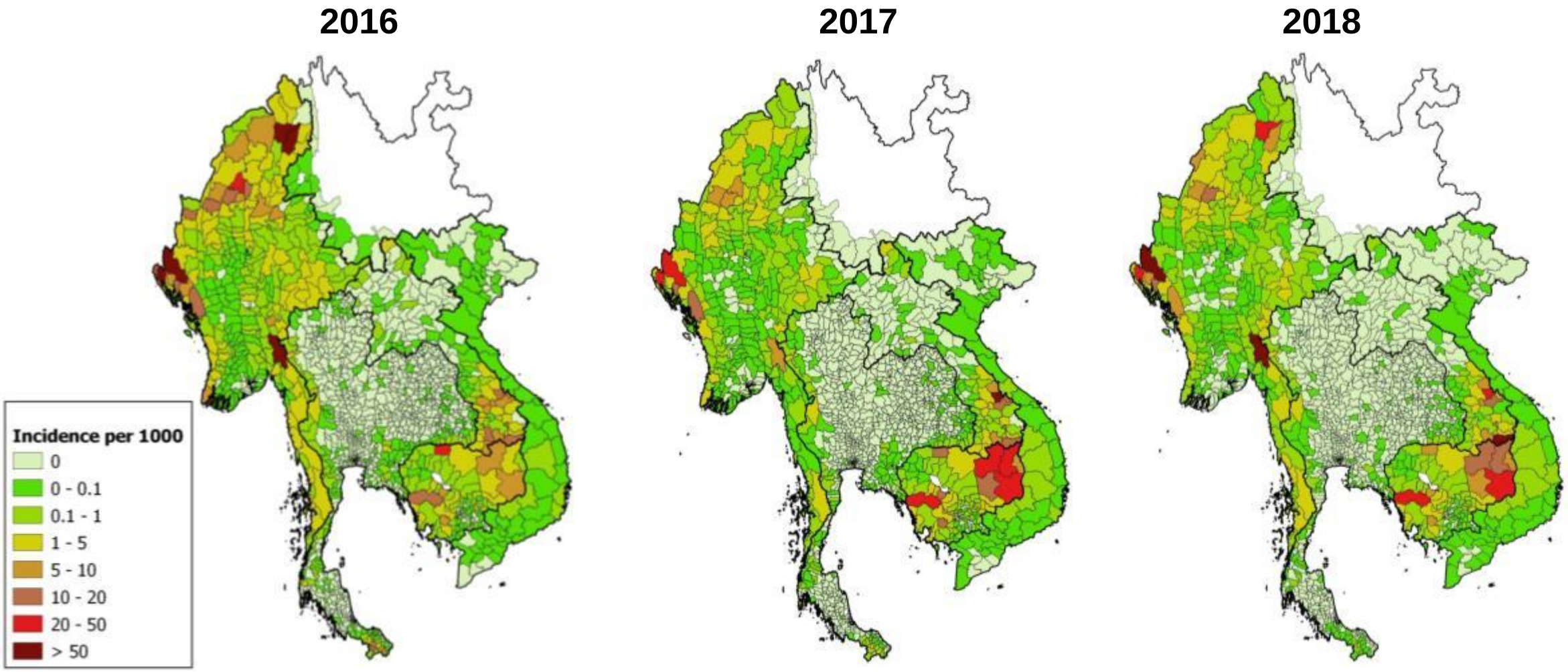
P. falciparum Case Distribution in GMS

Pf+Mix Incidence by District*



Source: WHO subregional database. *Viet Nam data are provincial level. Myanmar data in 2018 do not include reports from CSOs.

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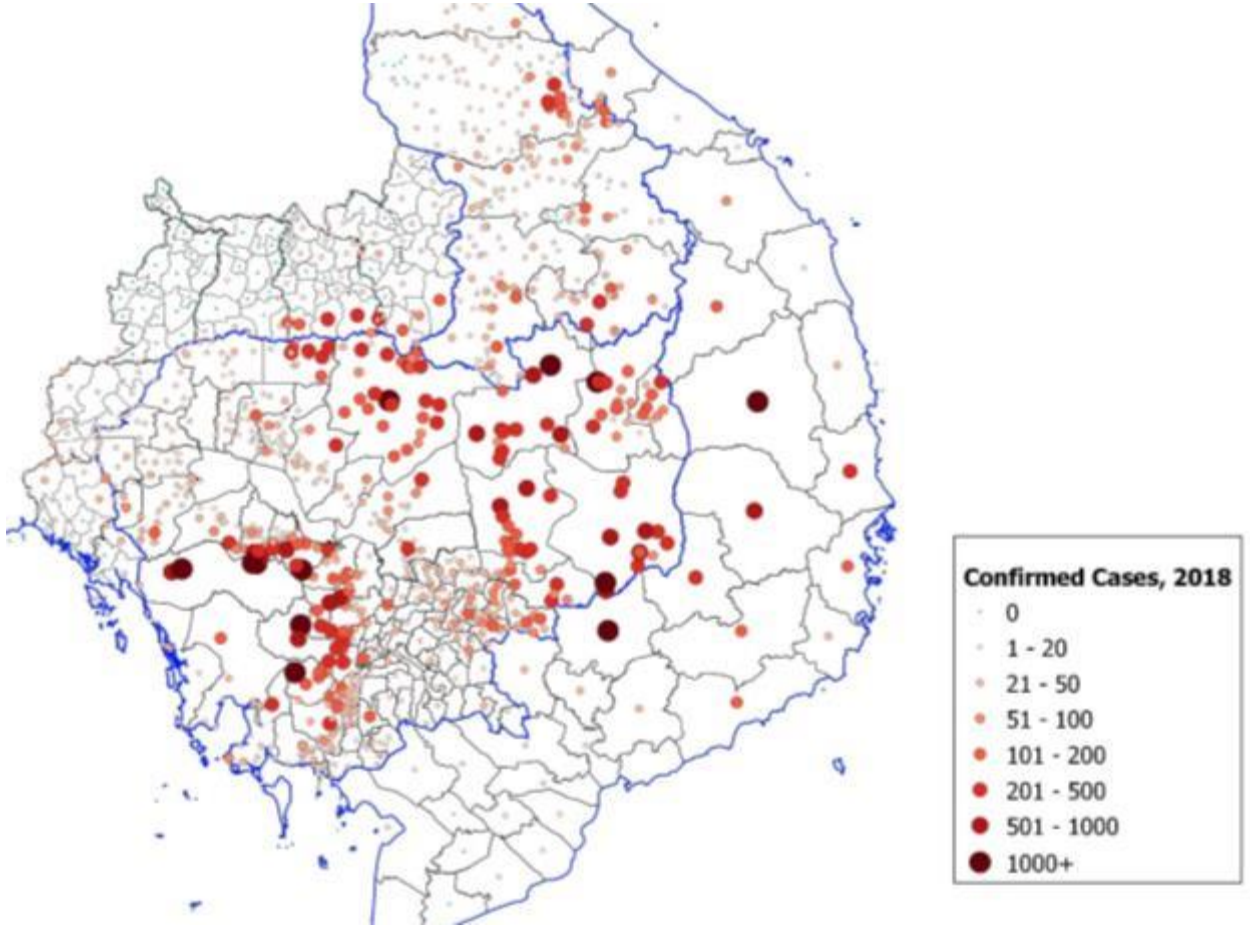
Cases are highly concentrated

Case distribution in Northern Cambodia and adjacent provinces (Jan-Dec 2018)



- Cases are highly concentrated in a few health centres in Cambodia and Lao PDR
- In both Cambodia and Lao PDR, top 20 facilities account for approx. 40% of cases, while top 50 account for approx. 60% of cases in 2018

Source: WHO subregional database. Cambodia/Lao PDR data are at commune/HC levels; Thailand data are at district level; and Viet Nam data are at Provincial level.

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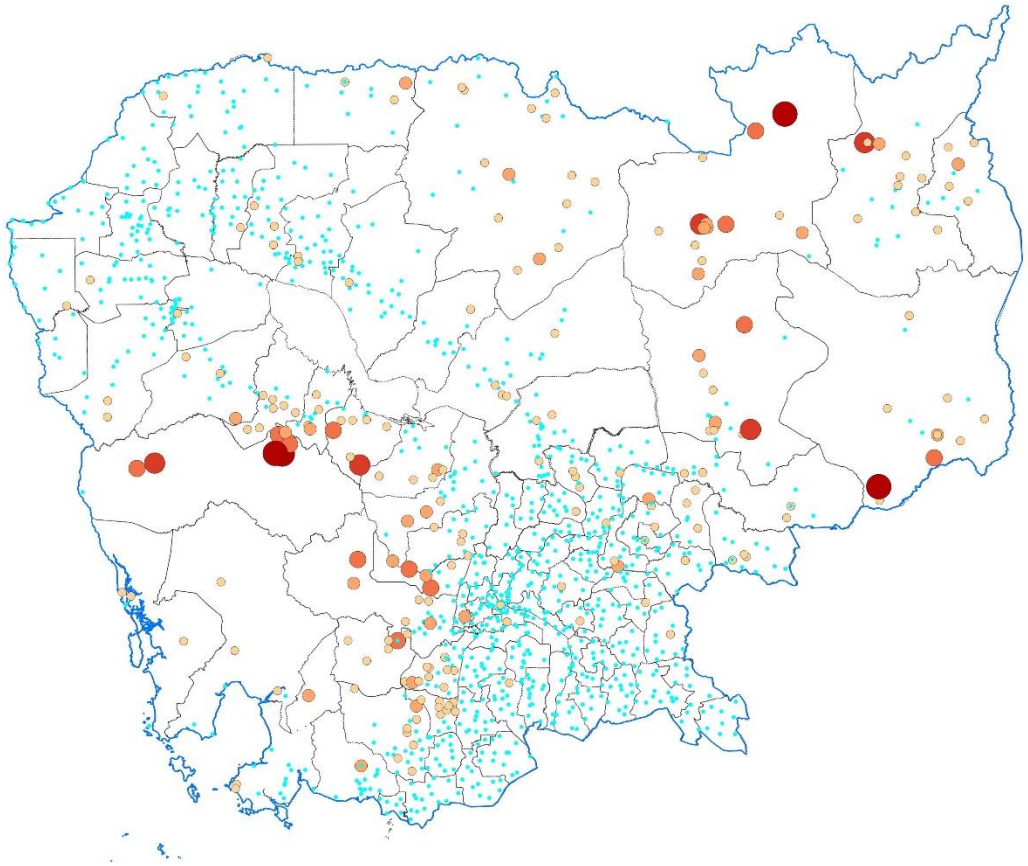
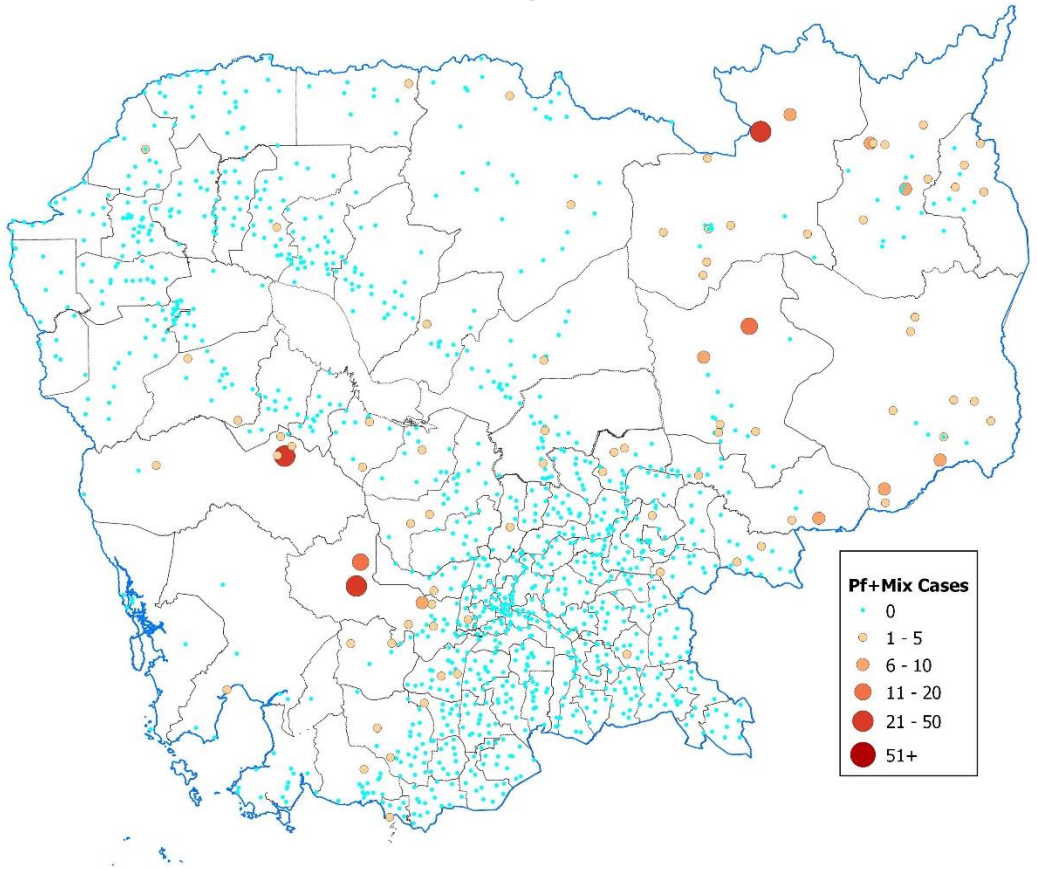
Significant Progress made in Cambodia (P. falciparum)

Cases in April 2018



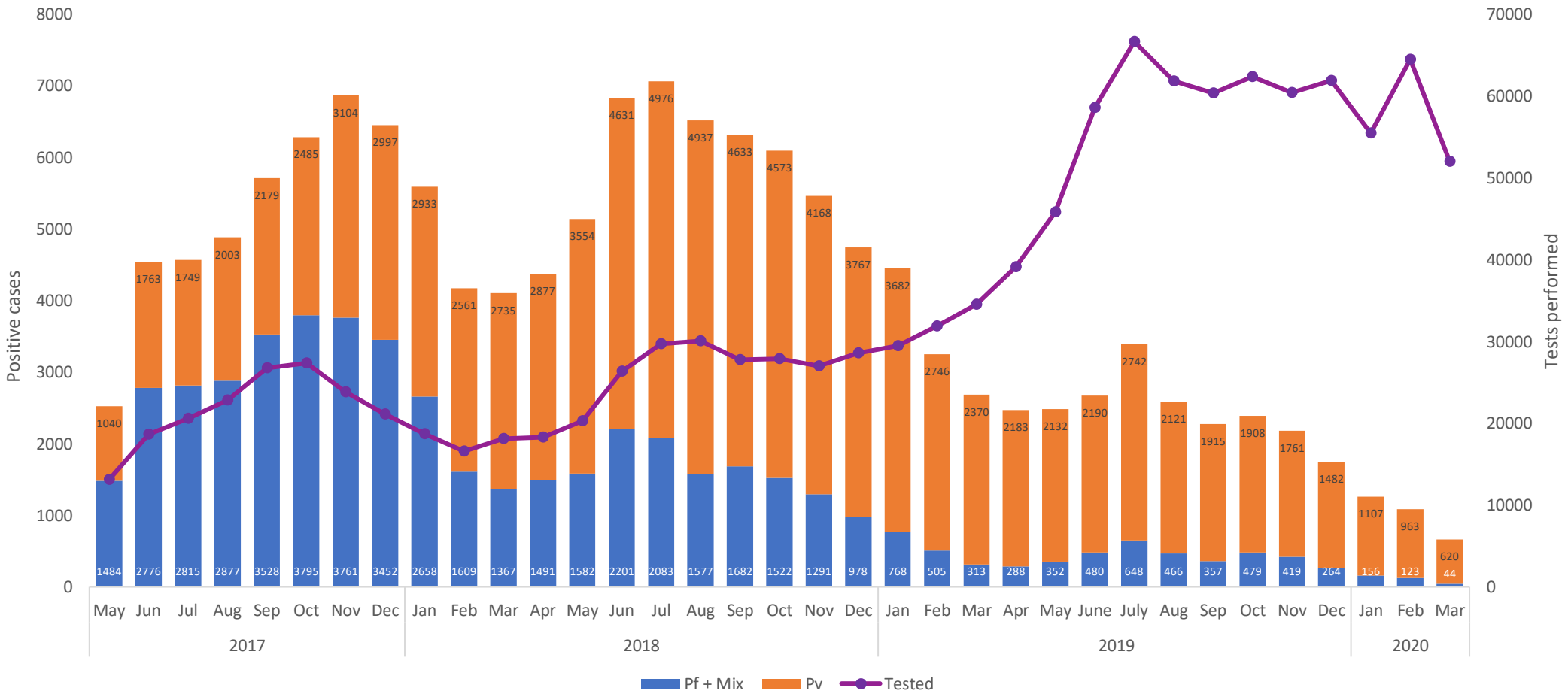
- 220 clinics reported Cases
- 51 clinics reported more than 5 cases.

Cases in April 2019



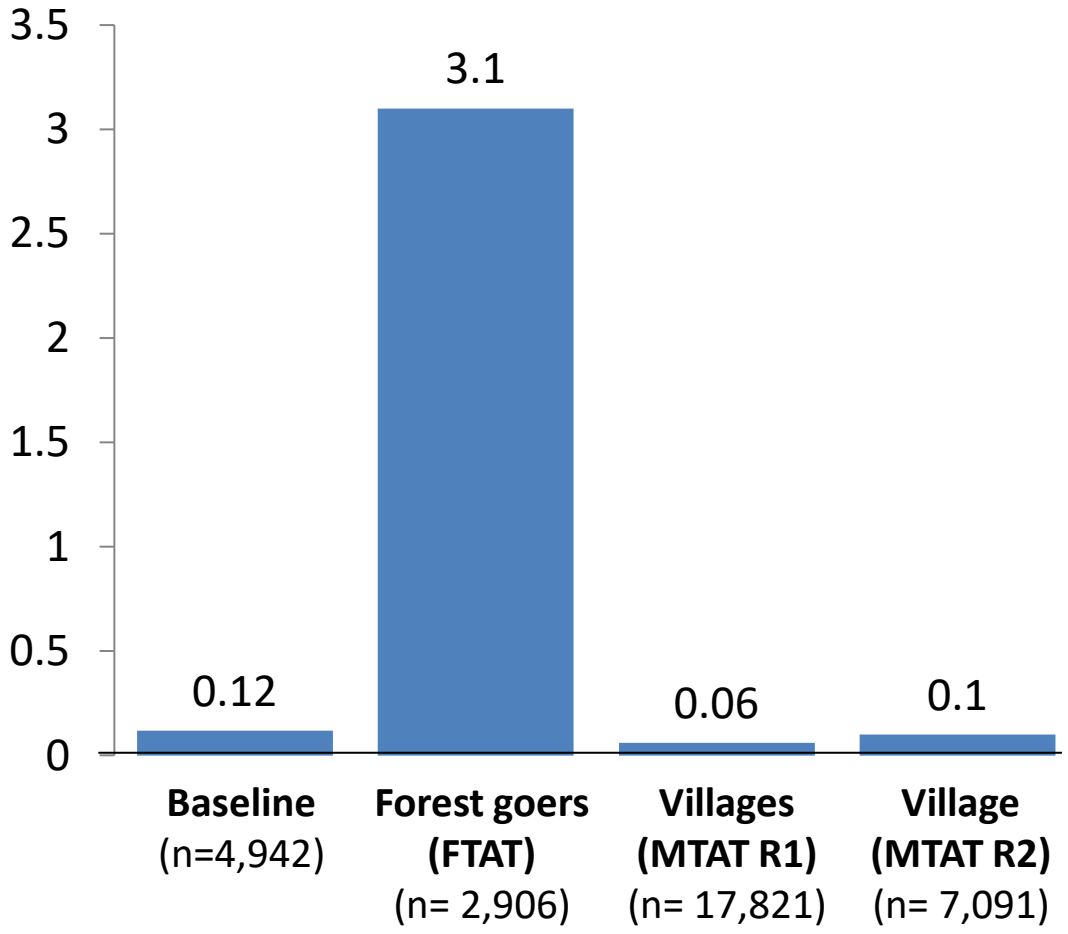
- 99 clinics reported Cases in Apr-19
- 13 clinics reported more than 5 cases.

Significant Progress made in Cambodia

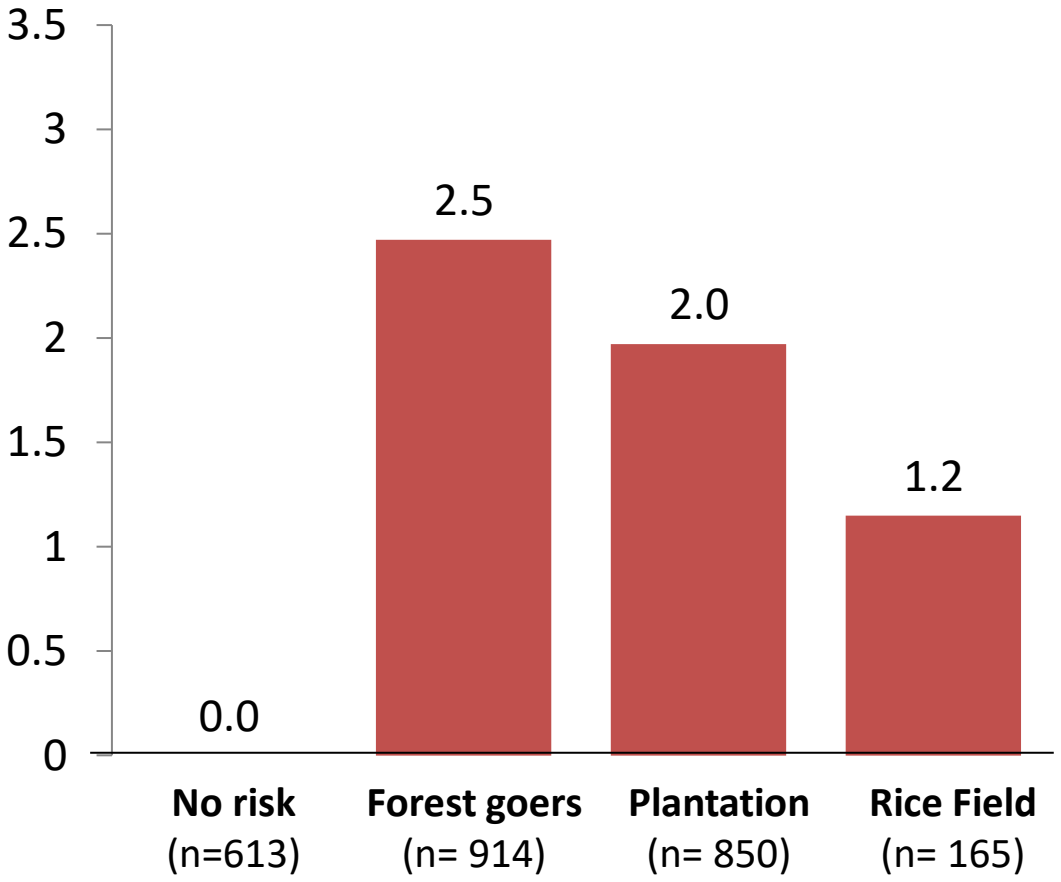


Most cases are among forest goers (Results from UCSF and MSF)

Prevalence of all malaria parasites (RDT)
(% of positive case, Champasak, Lao PDR)



Prevalence in malaria in Preah Vihear, Cambodia
% of positive case, N= 2772



Source: UCSF (Lao PDR) and MSF (Cambodia).

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Challenges: Accessibility in remaining endemic areas






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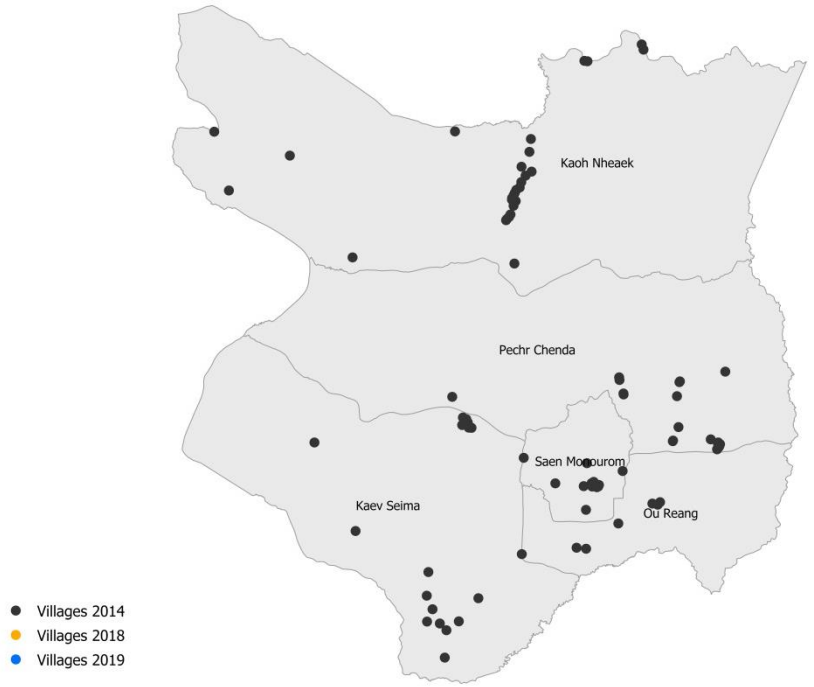
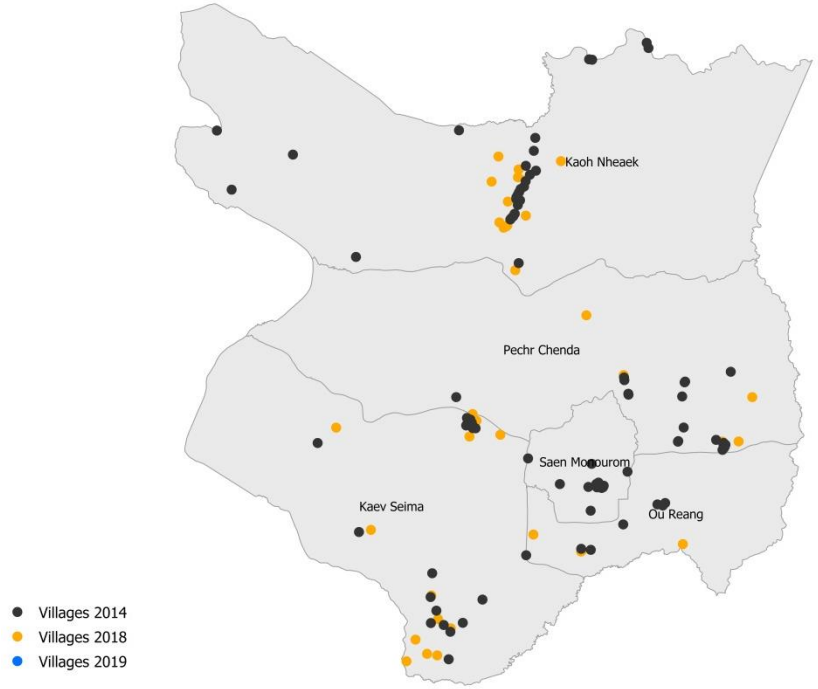
1. Mapping All Villages and Cases (Example in Mondulkiri)

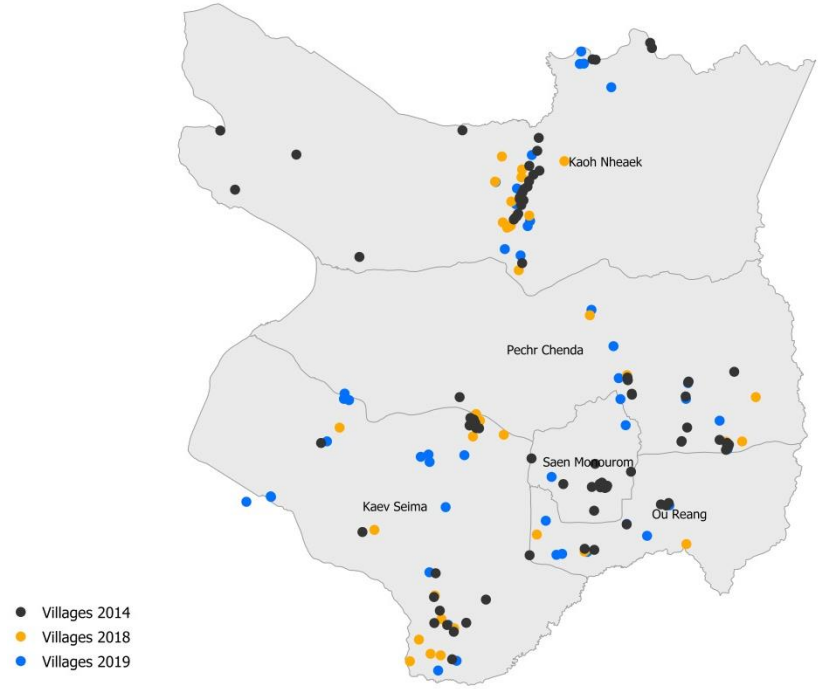
2014: 87 villages



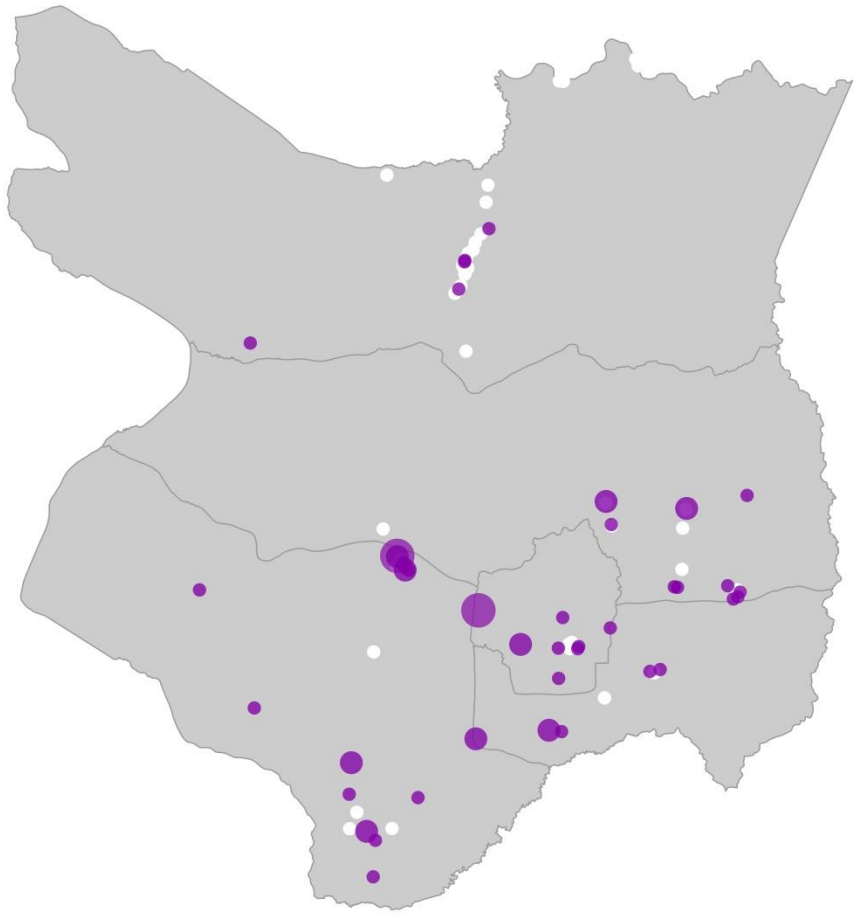
2018: 128 villages



2019: 178 villages



P. falciparum (Jan-Jun 2019) by village using **2014** map



Pf cases Jan-Jun 19 (village or outreach)
White dots=zero Pf cases

- ≤5
- ≤10
- ≤15
- ≤21

Source: MIS as of 8 July 2019

0 5 10 20 30 40 50
Kilometers

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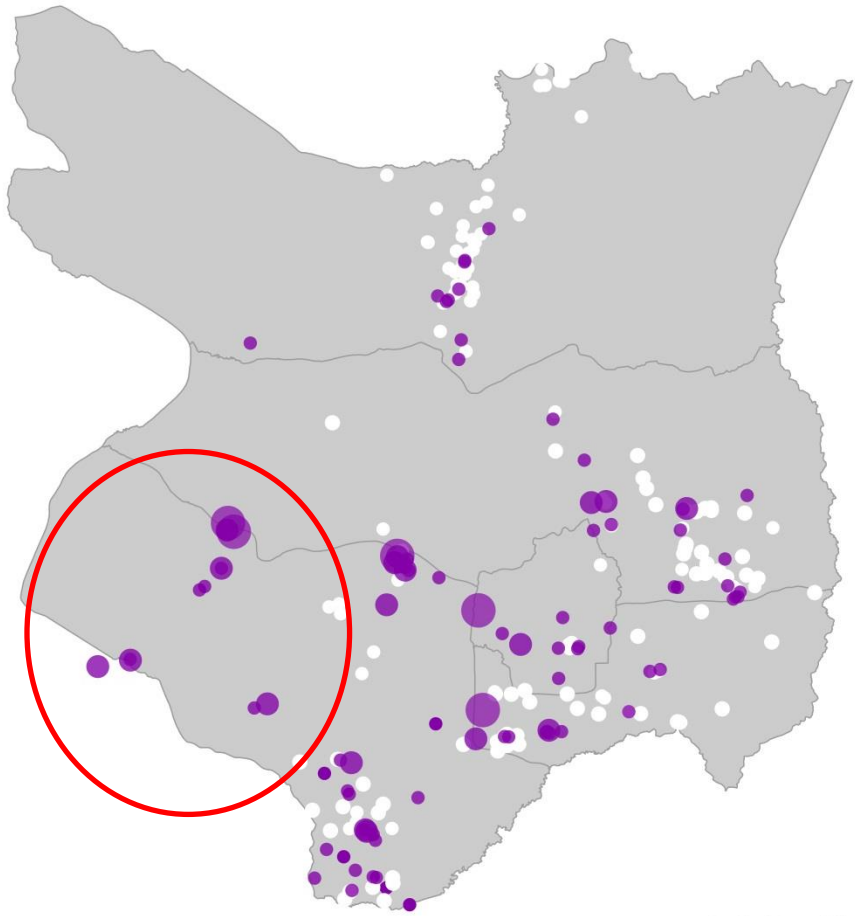
P. falciparum (Jan-Jun 2019) by village using **2019** map



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Source: MIS as of 8 July 2019

0 5 10 20 30 40 50
Kilometers

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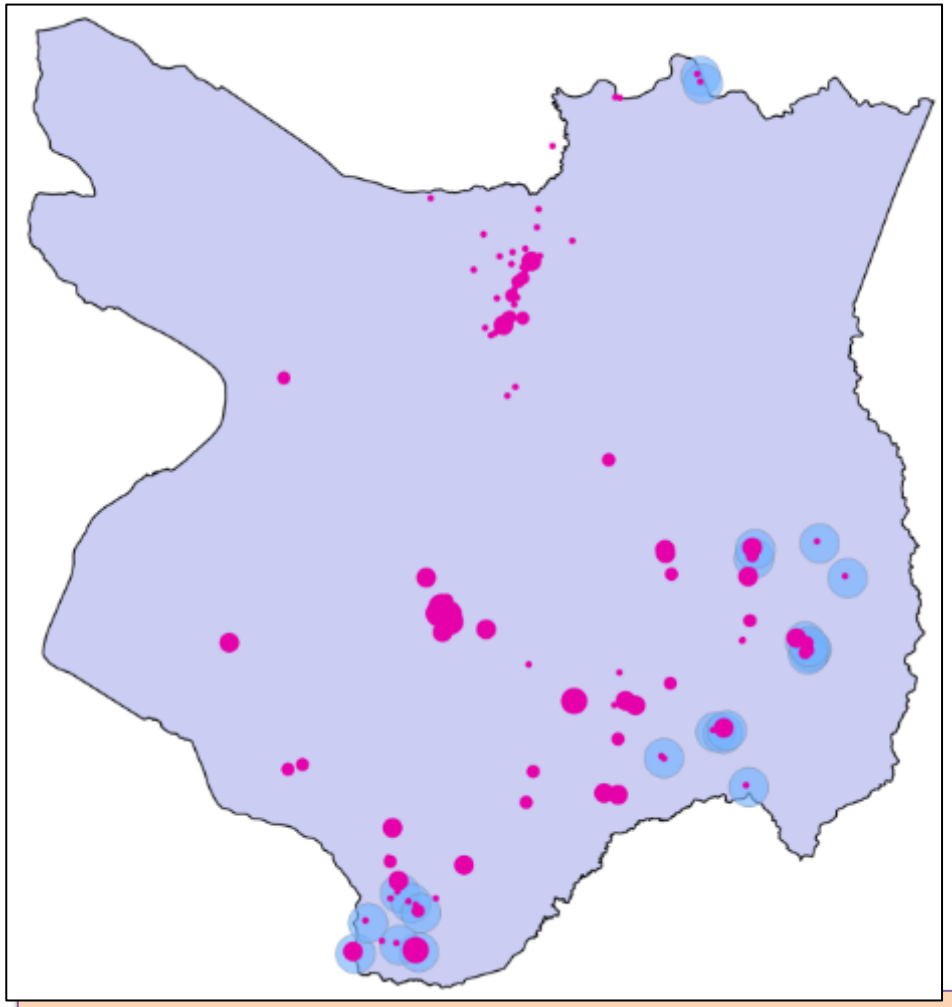
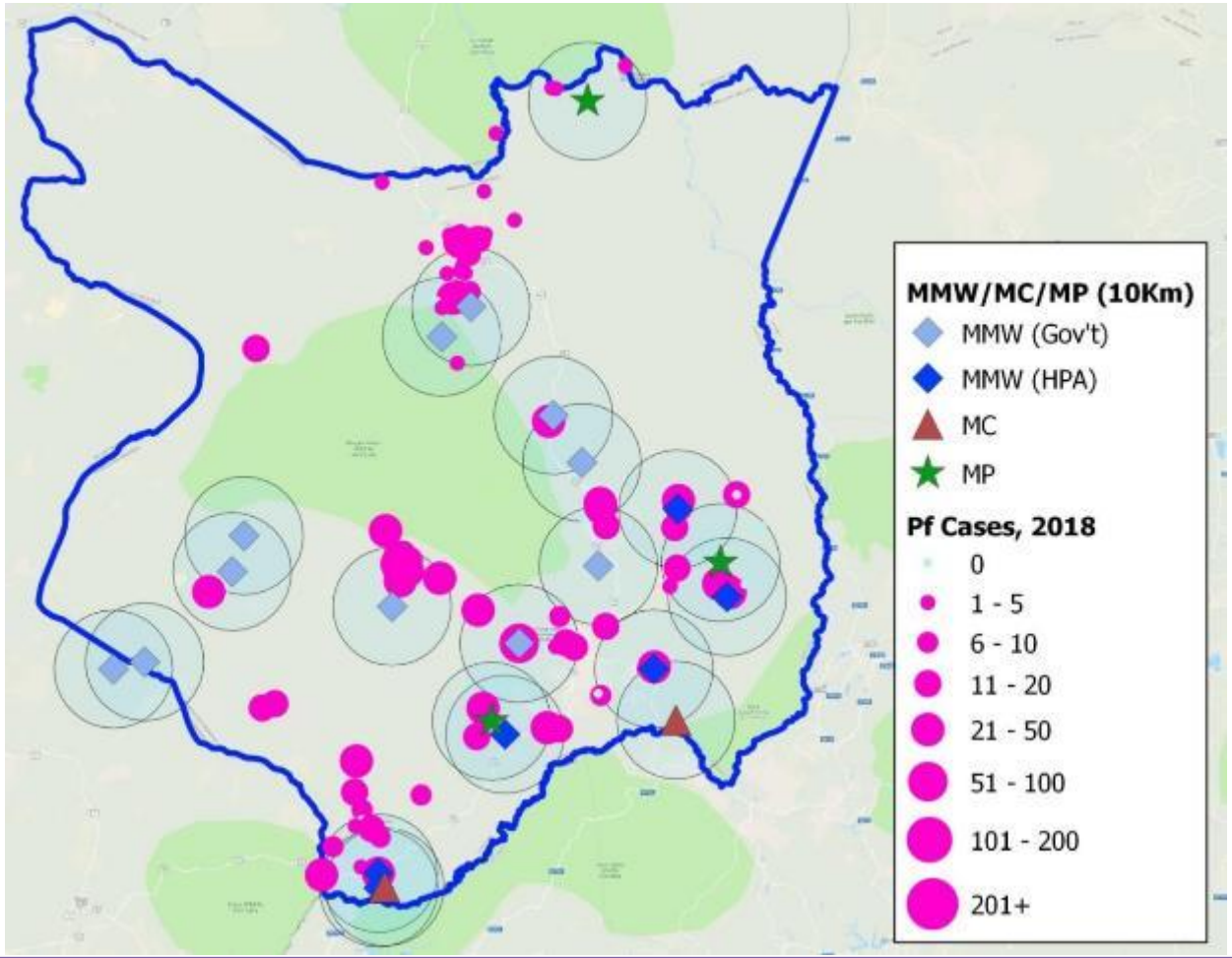
Mapping “Hotspots”: An Example in Mondulkiri, Cambodia

August 2018



February 2019

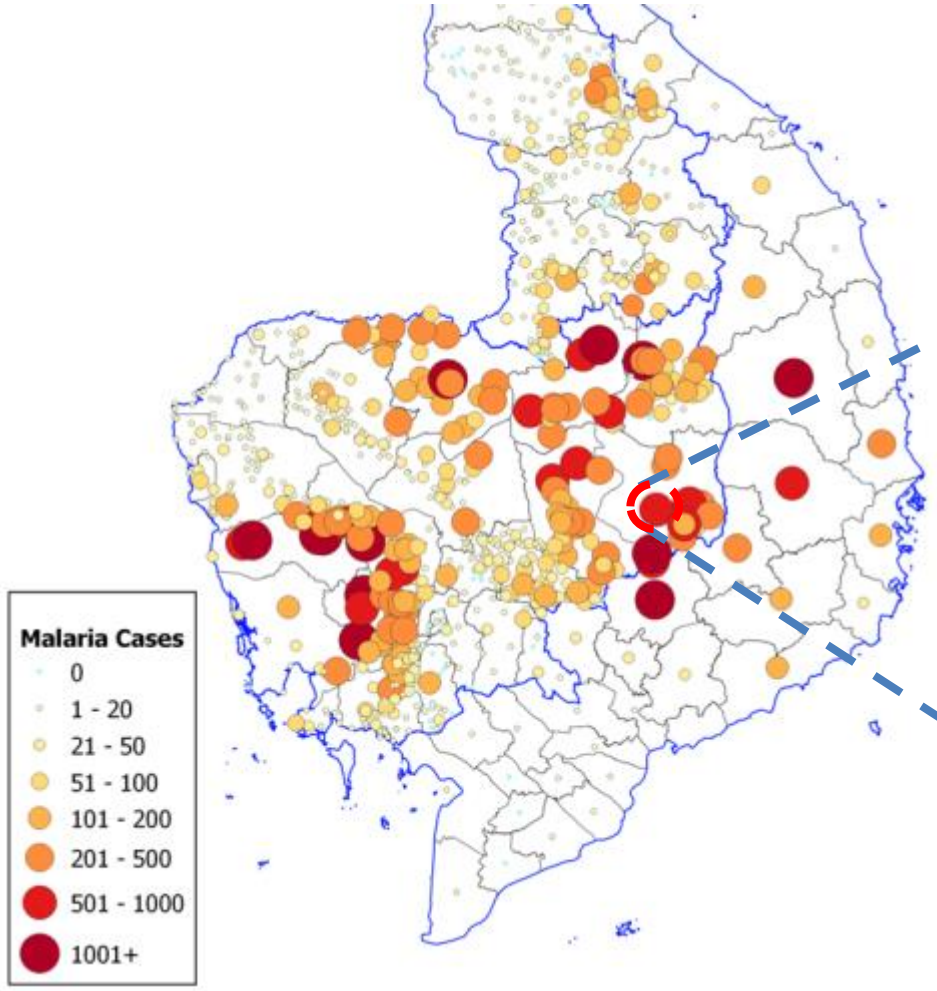


The Map enabled better alignment of resource allocation and epidemiology in Mondulkiri

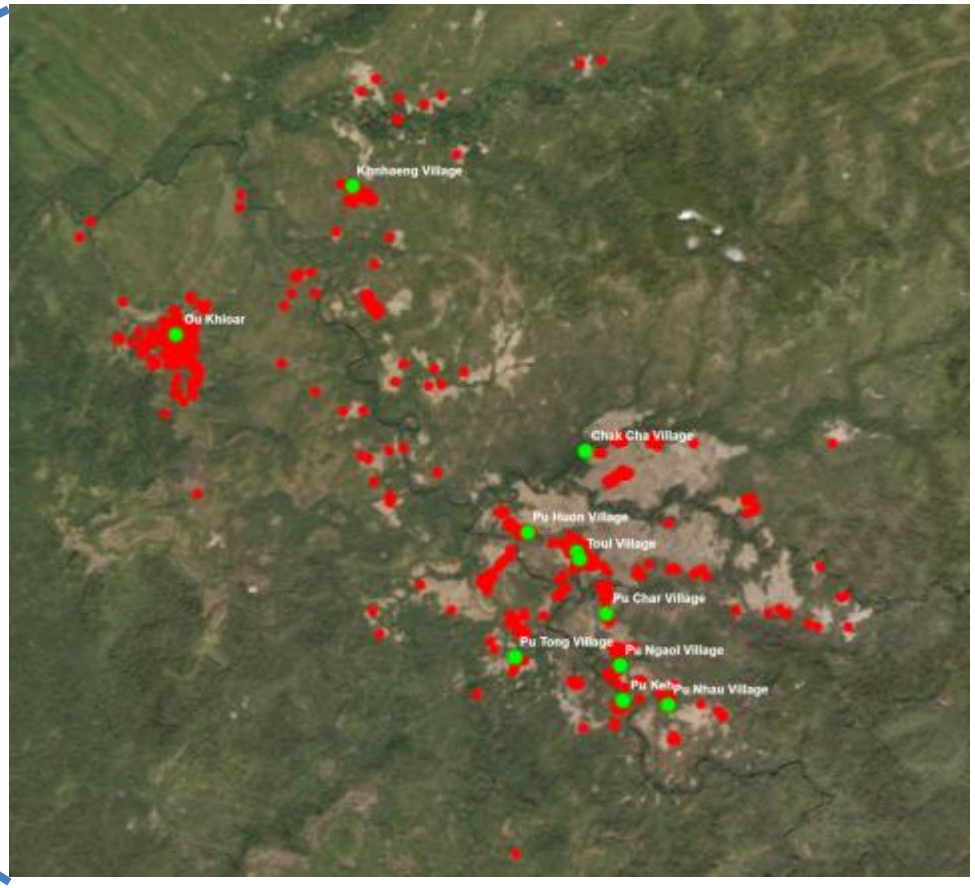
Organization

Mapping forest sites with satellite images

Number of Pf Cases in 2018 in Mondulkiri



Possible Forest Sites in Me Mang, Mondulkiri, Cambodia



Source: WHO subregional database.

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2. Need for community-owned approach

- Mobility patterns, group size and access to communications differs significantly across forest goers. As a result, there is no one-size-fits-all solution to reaching forest goers

- To develop effective and tailored intervention strategies, it is helpful to work hand-in-hand with the community, government and partners.

- This will also improve the ownership of the communities in resource-scarce settings.

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Benefits of community-based approach

- By utilizing this approach, tailor-made strategies can be developed hand-in-hand with the community, government and partners

- Major differences between villages could be uncovered to better align and adapt interventions

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3. Improve Support to Village Malaria Workers

- More support to malaria workers at the most peripheral level (e.g. malaria staff at clinics, volunteers) to improve malaria response to:
  - Shift the focus to the hotspots
  - Regular and finer update of malaria epidemiology for quick adaptation of malaria services
  - Focus of supervision and support to hot spots and high pops

- Mechanism to address any issues and support their quick resolution (e.g. financial and operational)

Summary

- GMS countries significantly reduced the number of malaria cases from 2012-2018. In 2018, countries made significant progress towards elimination, especially Cambodia, Myanmar and Thailand
- Malaria cases are concentrated in small geographical areas among forest goers, requiring a focused and tailored strategy for these population, including:
  - Map the case distribution and resource allocation to ensure the focus on the areas with remaining transmission
  - Develop a tailored strategy in each village/community
  - Empower the village volunteers and malaria focal points so that they could take necessary actions to address their population

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Thank you

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