

Malaria Elimination in the Kayin State, East Myanmar

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SMRU.
Shoklo Malaria Research Unit

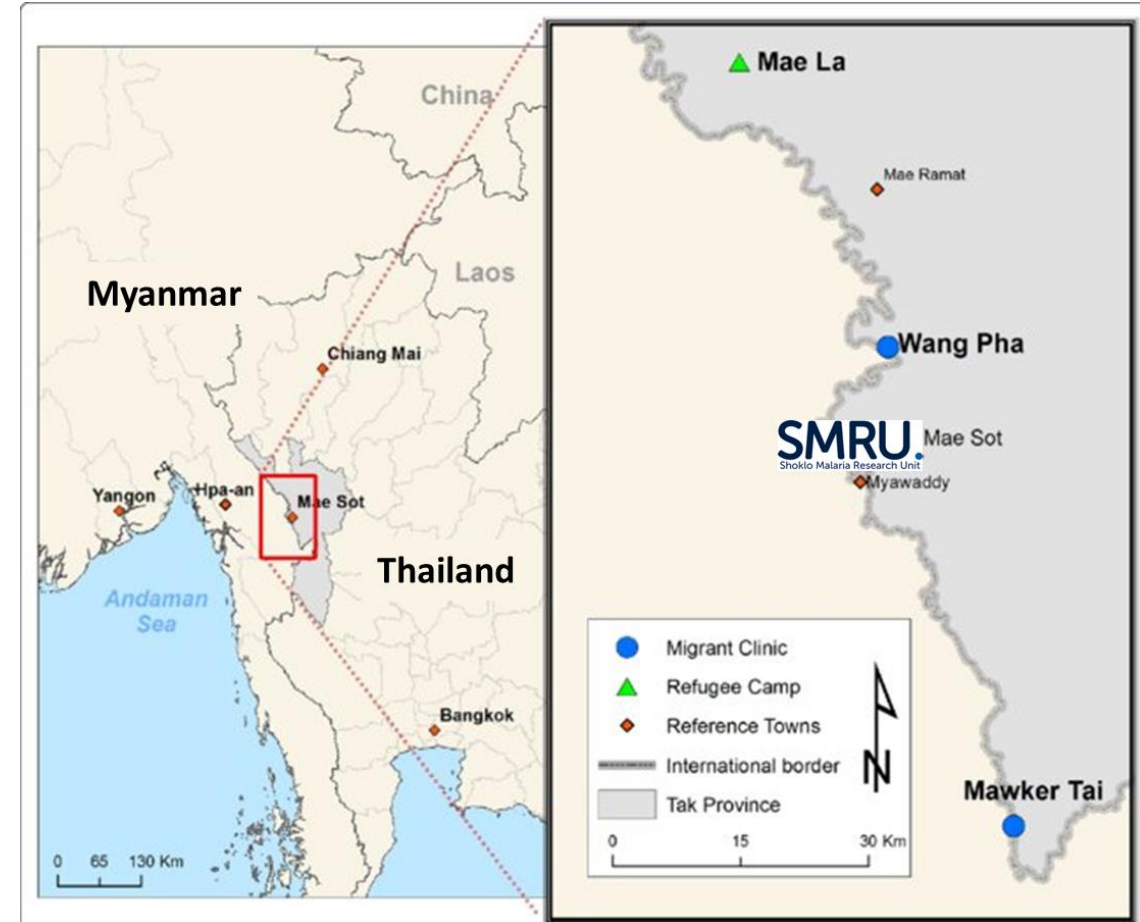


มูลนิธิ เดอะ บอร์เดอร์แลนด์ เฮลท์
The Borderland Health Foundation

Background

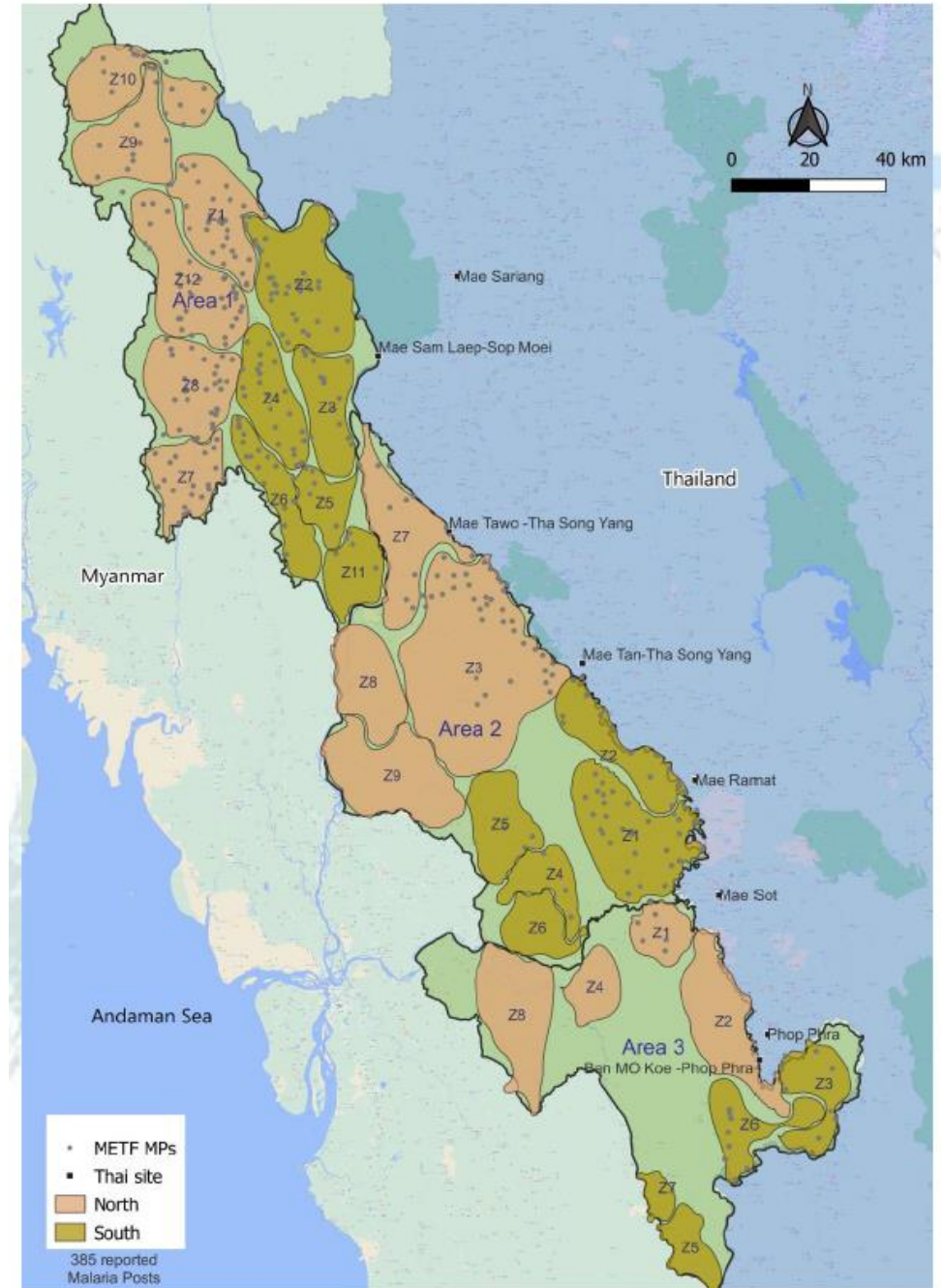


- Part of Mahidol-Oxford Research Unit network.
- Based in Maesot, Thailand,
- Established since 1986.
- Research & humanitarian work.
- Malaria, MCH, TB & other tropical infectious diseases



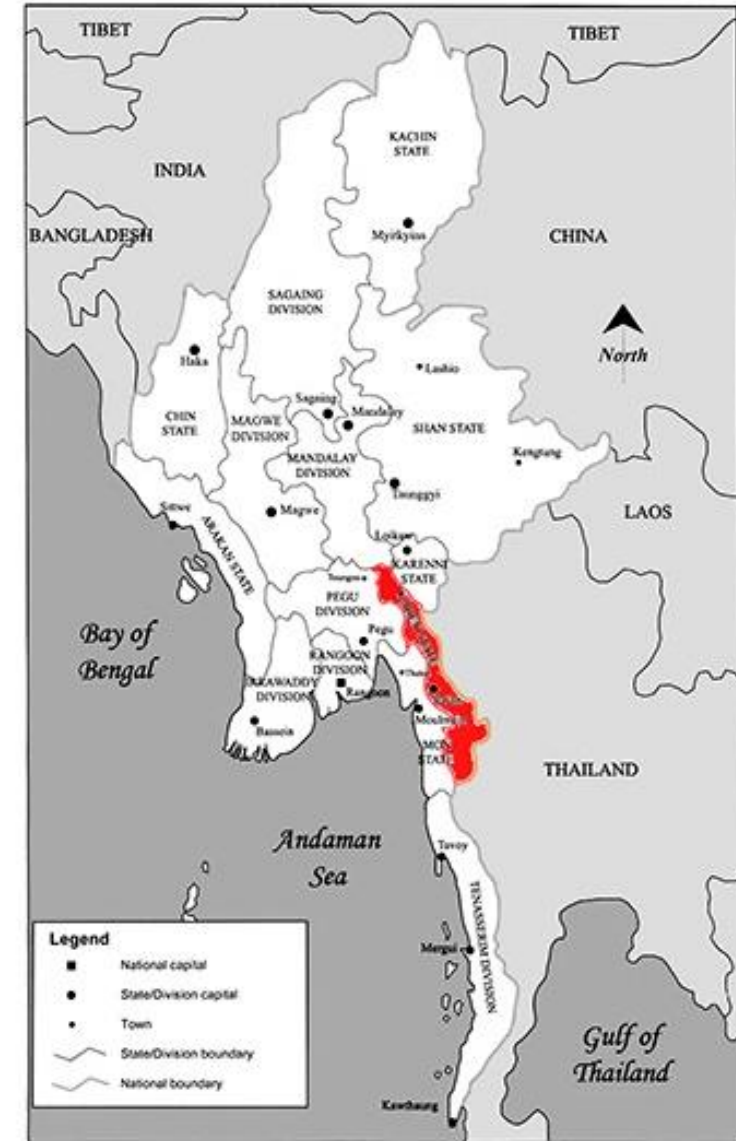
Malaria Elimination Task Force (Myanmar)

- Initiated in 2014
- Consortium (SMRU, Ethnic Health Organizations, and Community based organizations)
- To eliminate drug resistant *P. falciparum* malaria



Context

- Decades of armed conflicts
- Geographical isolation
- Limited access to malaria services (general health services)



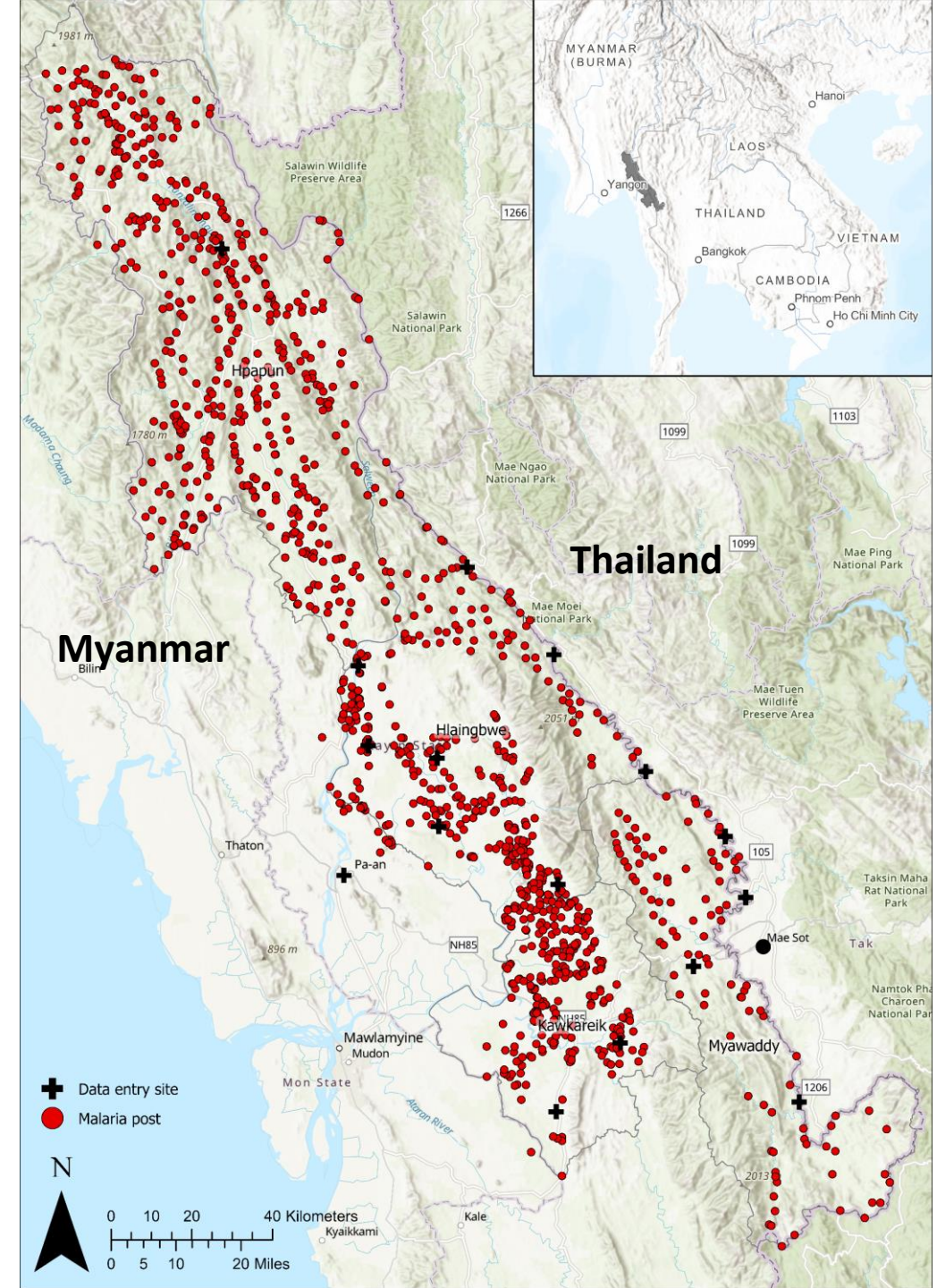
Elimination Strategy

- 1) Malaria Elimination Task Force key interventions
 - i. Community engagement
 - ii. Mapping
 - iii. **Malaria Post network**
 - iv. **Malaria Surveillance**
 - v. Sub-microscopic surveys and MDA in hot-spots
 - vi. Entomological assessment and vector control
 - vii. Artemisinin resistance monitoring



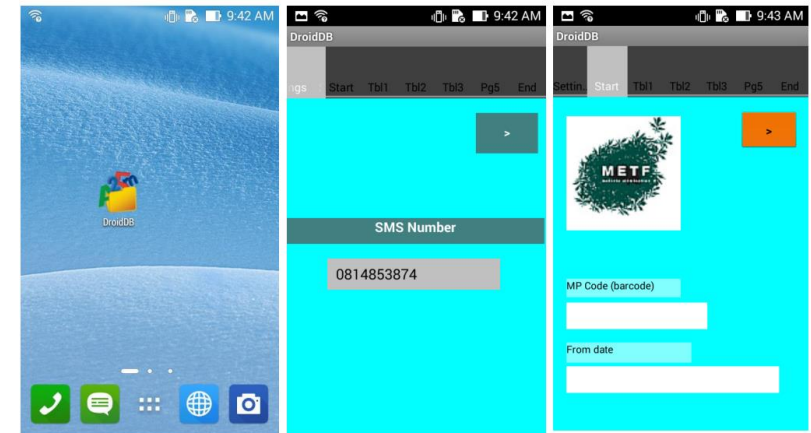
Malaria post network

- Over 1,200 villages are set up from 2014-2022.
- Malaria Post(MP) are opened in villages with limited access to the health care services.
- MP consist of a trained health worker “**malaria posts worker**”, stock with RDT and antimalarials
- To provide early case diagnosis and treatment
- Weekly data reporting of malaria cases



Malaria Surveillance

- Malaria post workers are the key to surveillance.
- MP structure record and submit the malaria data on weekly.
- Mobile Android-based application that use (SMS transmission) to collect data.



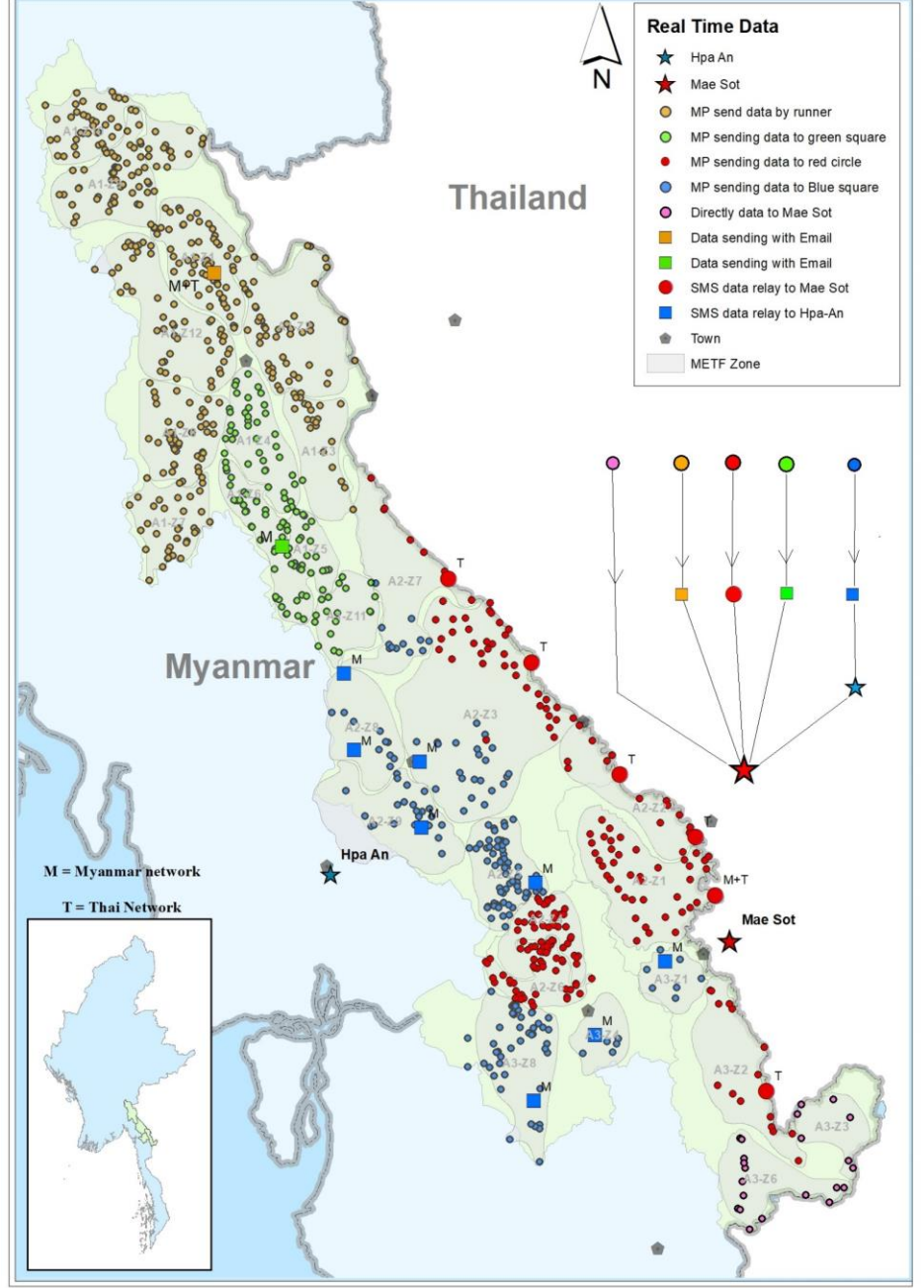
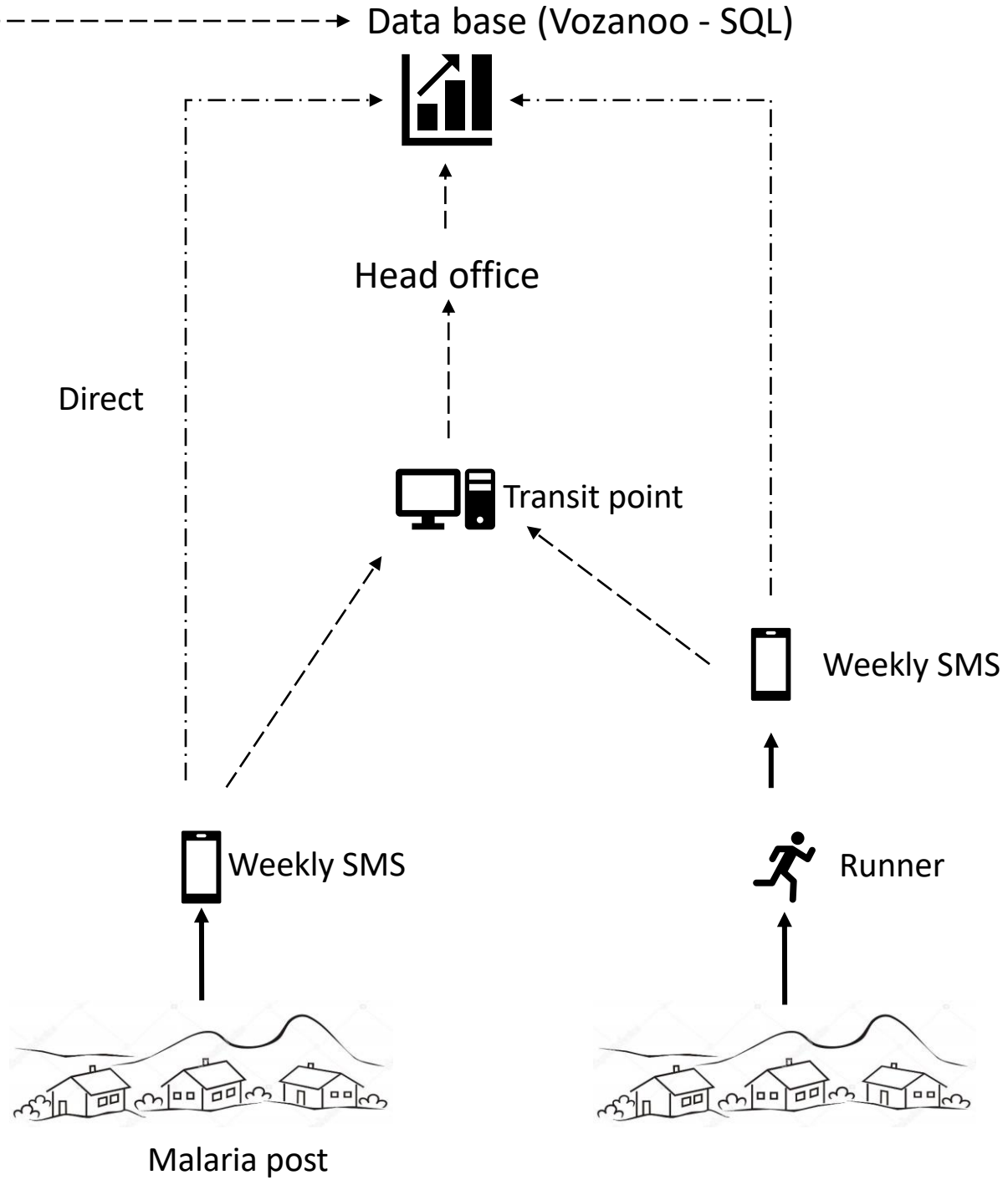
Shortcut on main screen

Set up of the SMS number to be called (1 time)

Date / place entry (barcode automatically entered from printed sticker or manual entry)

Android based application (use SMS signal)

Monthly case based report



Malaria posts surveillance reporting network

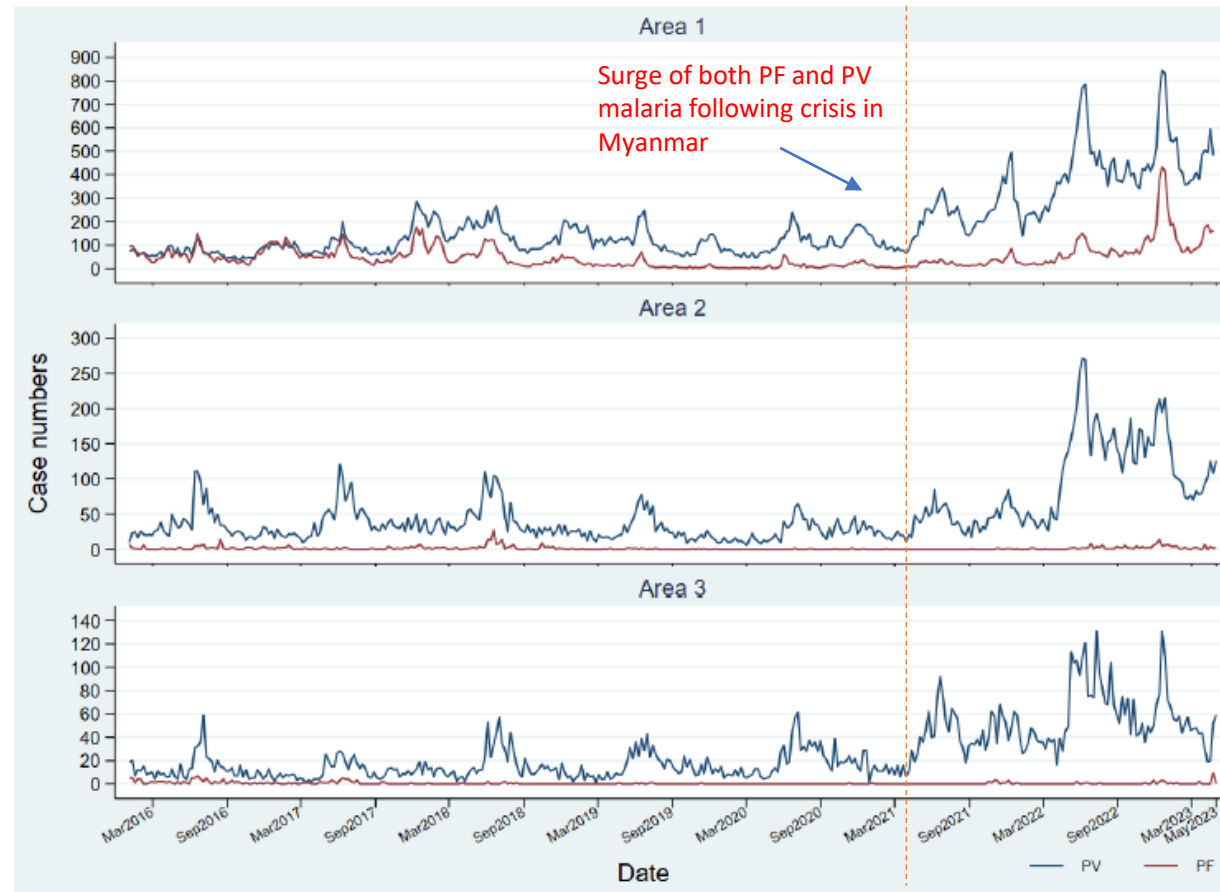
Surveillance System setup

- This set up require
 - GIS mapping of the villages/settlements
 - Identification of cross-border mobile network and coverage
 - Understanding of the geographic terrain and road network
 - Use of alternate communication tools such as radio transmission, runners (in area with no mobile network coverage)



Utilization of the surveillance network

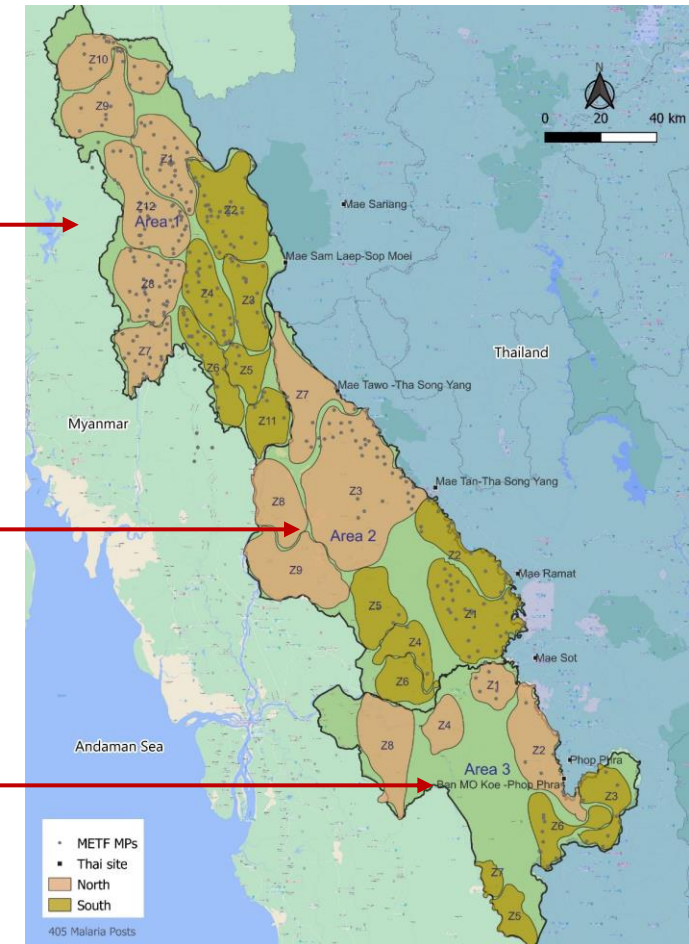
Figure 1: Total weekly case numbers for each area



Area 1

Area 2

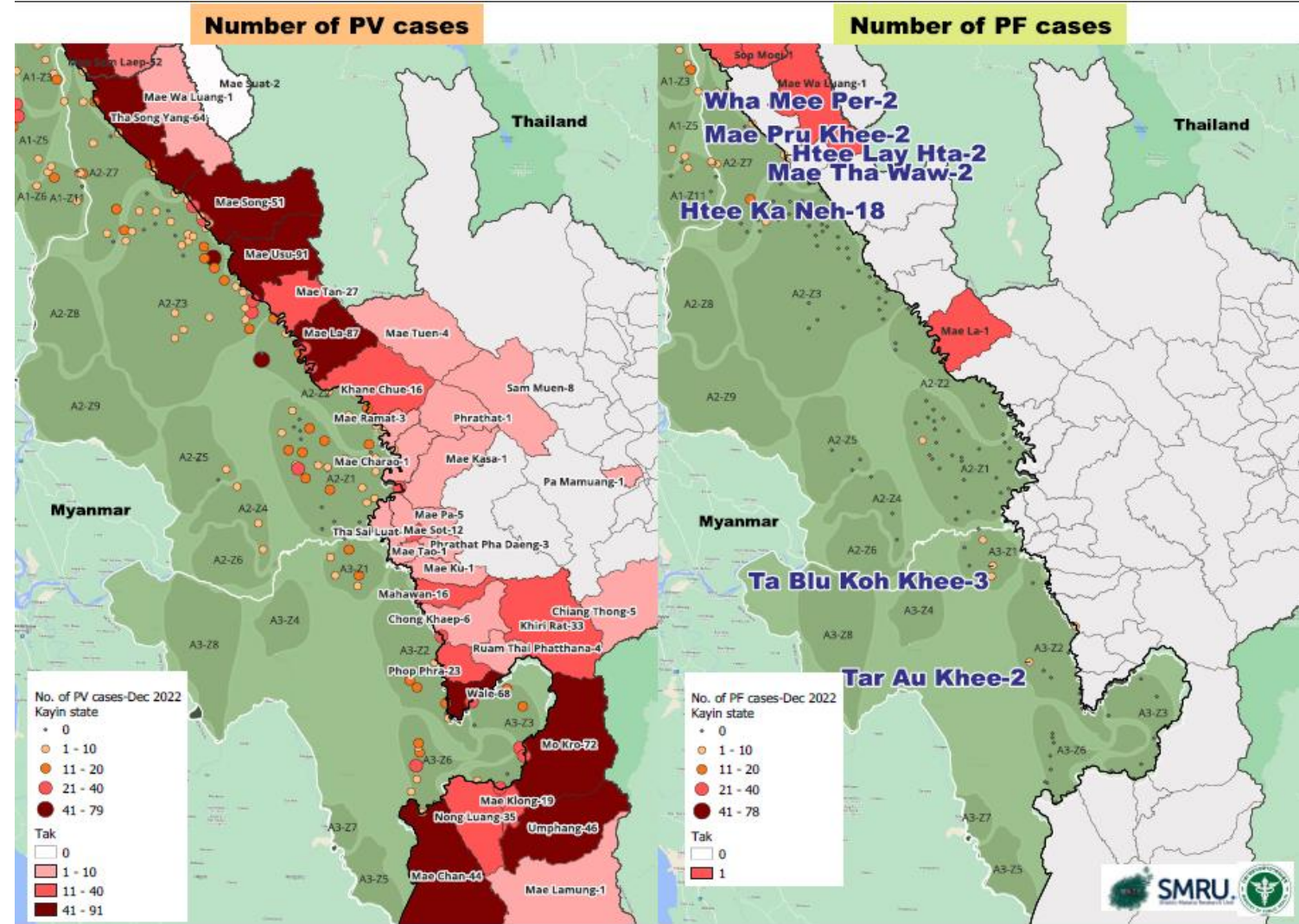
Area 3



- Declined in incidence of *P. falciparum* between 2016 to 2022 was contributed by MP through EDT
- Weekly surveillance system allow to closely monitor the malaria and trigger reactive responses such as CI, MSAT.

Utilization of the surveillance network

- Cross border surveillance along Thai-Myanmar border.
- Support the malaria control and eliminations on the Thai-border.



Summary

- Malaria post workers are the core of the elimination program.
- Robust malaria surveillance system is critical to guide the malaria elimination.
- Adaptive tools and methods are required according to context.
- This can be achieved even in hard to reach and resource limited context.

Thanks to

METF & SMRU team:



Partners and their staffs:



MORU



Communities in Eastern Kayin state



Funders:



Global Fund

