

# Contributing to malaria elimination: Lessons from delivering *Plasmodium vivax* malaria radical cure in northern Cambodia

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## Introduction

In Cambodia, malaria is concentrated in forested border areas and in hard-to-reach mobile and migrant populations. Mobile malaria workers (MMWs) detect cases among these populations, where access to static service providers is limited. While *Plasmodium falciparum* malaria has steadily reduced, *P. vivax* has become more prominent. Primaquine radical cure prevents periodic *P. vivax* malaria relapses, but requires prior testing for glucose-6-phosphate dehydrogenase (G6PD)-deficiency. G6PD tests and primaquine are only delivered at health facilities; MMWs support with case referrals and follow-up.

## Methods

- Supported by Malaria Consortium, 85 MMWs delivered services across 78 delivery locations in six border provinces (March 2021 – February 2022) (Figure 1).
- We analysed programmatic data to describe the first year of *P. vivax* radical cure rollout, including testing of cases, referral to health facilities for G6PD testing and radical cure provision, and coverage of behaviour change interventions.
- MMWs and field officers conducted 4,694 health education sessions with hard-to-reach communities to increase awareness of radical cure and identify community-led solutions to barriers preventing uptake.

## Results

- Test positivity rate for *P. vivax*/mixed malaria: 0.4 percent (281 cases detected/75,091 people tested).
- Main bottlenecks to delivering radical cure: referral (30.8 percent of eligible cases were not referred to health facilities) and MMWs' follow-up of treated cases (69.2 percent of G6PD-sufficient cases were followed up at day three, after treatment — Figure 2).
- Health education sessions identified solutions to bottlenecks including: increasing dialogue with communities to maintain awareness of radical cure and to identify community-led solutions to low referral rates; and improving referral rates through financial support (e.g. transport to health facilities) and visits from nurses to test and treat patients on site.

## Conclusion

While MMWs can play a role in distributing *P. vivax* radical cure, community-led solutions are key to successful implementation. Lessons learnt from delivering radical cure to hard-to-reach communities are applicable to national malaria control programmes in the Greater Mekong Subregion and other pre-elimination settings, where elimination efforts to address the remaining burden of *P. vivax* malaria are becoming increasingly important.

# Community-led solutions are key to successful implementation of *Plasmodium vivax* radical cure

## Supplementary visuals

Figure 1: Location of mobile malaria worker service delivery points in border areas of northern Cambodia

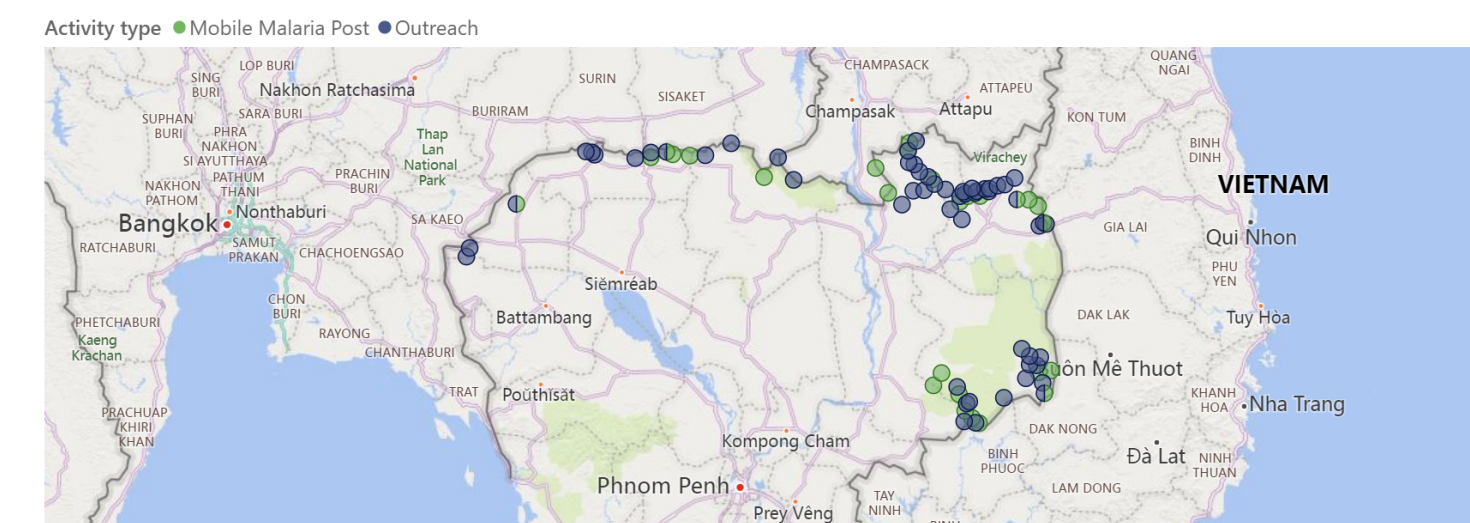
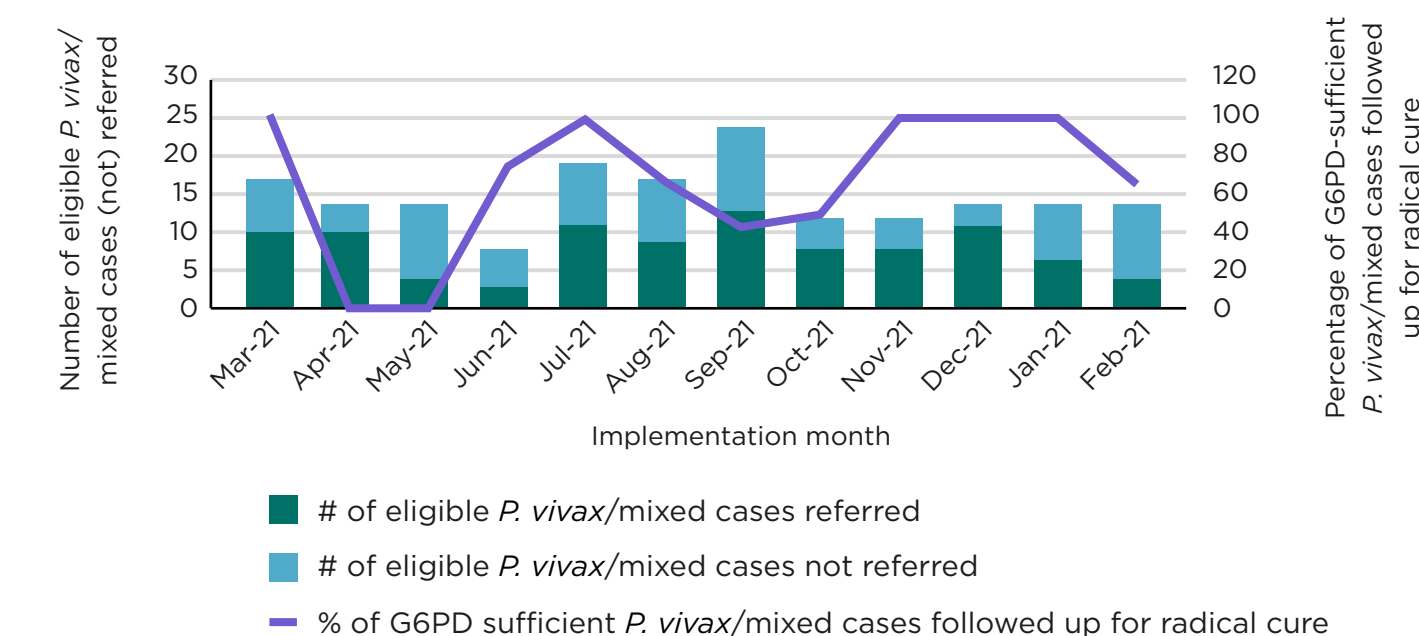


Figure 2: Proportion of eligible *P. vivax*/mixed cases referred to health facilities and proportion of G6PD-sufficient mixed/*P. vivax* cases followed up by mobile malaria workers



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