



Distributing mosquito bite-prevention tools among forest goers

Supporting malaria elimination in Mondulkiri province, Cambodia

Background

Between 2020 and 2021, Cambodia achieved a 65 percent decrease in *Plasmodium falciparum* cases, from 1,026 to 361 cases.^[1] To accelerate this remarkable progress and achieve malaria elimination by 2025, it is essential that the government reaches communities in remote, forested areas for malaria prevention and treatment. These hard-to-reach communities are responsible for sustained malaria cases in the country, as their internal mobility and cross-border migration contribute to continued malaria transmission.

Forest goers and mobile and migrant populations are at the greatest risk of contracting malaria. They experience high exposure to mosquitoes while working in the forests. They also have limited access to community or facility-based healthcare. Services are either located far from forests or are difficult to reach due to road conditions.

Since 2009, Malaria Consortium has been working with the Cambodian government to reduce malaria cases. Through the Regional Artemisinin Initiative 2 Elimination (RAI2E, 2018–2020) and the RAI3E (2021–2023) projects, funded by The Global Fund, we have been disseminating knowledge, testing and treatment through mobile malaria workers (MMWs) to communities living in hard-to-reach areas.

Country

Cambodia

Donor

University of California San Francisco, via
Health Forefront Organization

Length of project

October 2022 — February 2023

Partners

Cambodia National Center for Parasitology,
Entomology, and Malaria Control (CNM),
National Malaria Programme Cambodia
University of California, San Francisco's Malaria
Elimination Initiative (UCSF MEI)
Health Forefront Organization (HFO)

Strategic objective

Influencing policy and practice

Project outline and objectives

The Bite Interruption towards Elimination (BITE) research project is supported and led by UCSF MEI in partnership with CNM. Under the project, we are supporting the distribution of vector control tools in forested regions of Mondulakiri province. HFO/UCSF Cambodia will implement the qualitative research component and data analysis.

The project's main objectives are to:

- assess the epidemiological and entomological protective efficacy, as well as the acceptability, durability and cost of the bite-prevention tools compared to the current standard of care
- contribute to the implementation of an innovative community-based approach to reduce malaria morbidity and mortality, and to accelerate case reduction towards elimination
- support health sector resilience to achieve universal health coverage in Cambodia and strengthen regional collaboration between project partners and the Mondulakiri Health Department
- inform scale-up of effective outdoor bite-prevention tools across Cambodia, the Greater Mekong Subregion and the Asia Pacific region to support near-term malaria elimination goals.

Activities

Each month, over four consecutive months, Malaria Consortium will deliver vector control tools to the same 3,500 at-risk people. They will receive spatial repellent sheets, to hang where they spend time; clothing spray, to treat garments worn outdoors; and personal topical repellent, applied to skin that may be exposed to mosquito bites. Under BITE, these three tools are being distributed and used together for the first time. As part of routine malaria outreach activities, we will:

- plan a distribution schedule during the high transmission season for MMWs to implement

- distribute to the targeted individuals approximately 56,000 spatial repellent sheets; spray for 28,000 sets of clothing; and 14,000 bottles of the topical repellent Etofenprox solution
- organise a one-day training with the malaria nursing staff who work at the health centre where distribution is taking place. Training will focus on developing MMWs' knowledge of outreach materials; social and behaviour change communication (SBCC); data collection and reporting; planning of distribution activities; and instructions on spraying skin and using treated clothes
- organise monthly meetings at the project's seven participating health centres, with malaria nursing staff and MMWs, to collect and verify distribution data, review health messages and provide prevention tools
- complete monthly reports on product distribution and promotion
- participate in scheduled meetings with partners to discuss reports and budgets, and solutions for improving distribution and health promotion.

HFO/UCSF Cambodia will lead on data collection, partner coordination, reporting and evaluation by:

- using polymerase chain reaction tests on dry blood spots to measure impact of using bite-prevention tools and defining asymptomatic cases
- providing a list of target villages and forest exposure criteria to guide distribution and promotion of bite-prevention tools
- designing SBCC tools/materials to promote appropriate use of products among communities in forested areas
- providing training/tools for implementing partner staff to use with outreach workers at community level.



Malaria Elimination Initiative

UCSF

University of California
San Francisco

Reference

1. World Health Organization. Innovate to eliminate: Community-focused malaria interventions in Cambodia and Lao People's Democratic Republic. [2022 Apr1; cited 2023 Feb 28]. Available from: www.who.int/news-room/feature-stories/detail/innovate-to-eliminate-community-focused-malaria-interventions-in-cambodia-and-lao-people-s-democratic-republic.

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Cover image: A village malaria worker explains the correct use of malaria prevention tools, Mondulakiri province, Cambodia



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