



# Malaria

## Scaling up effective, equitable, locally led, and evidence-based interventions

Malaria is a preventable and treatable infectious disease, transmitted by mosquitoes, that kills more than half a million people each year. Malaria cases and deaths are highest in sub-Saharan Africa, where it is the leading cause of childhood mortality. The global community has come together to combat malaria, with the goal of eradicating the disease by 2050.



**25+ years'** experience helping countries prevent and control malaria

RTI International is a global leader in malaria prevention, control, surveillance, and elimination. Since 1998, we have partnered with U.S. and multilateral donors, host country governments, universities, civil society, and the private sector to scale up the fight against malaria.



Supported **20+ national malaria programs** in Africa, Asia, and Latin America

We have extensive experience implementing large-scale global and bilateral programs in Africa, Asia, and Latin America and partner closely with national malaria programs to strengthen prevention, diagnosis and case management, vector control, and surveillance systems. We are at the forefront of efforts to help countries move toward malaria elimination, continuously innovating through our work in cutting-edge technologies.



Reached **100+ million people** with malaria education, prevention, and treatment

We developed Coconut Surveillance, an open-source mobile software application which has significantly enhanced malaria elimination capabilities in Zanzibar, and we are closely supporting the Thai government on outbreak response as it works toward elimination. In Senegal and Guinea, we are working to deliver preventive medicines to hundreds of thousands of children. Underlying everything we do is a passion for reaching the unreached with life-saving interventions.



Distributed **15 + million bed nets**

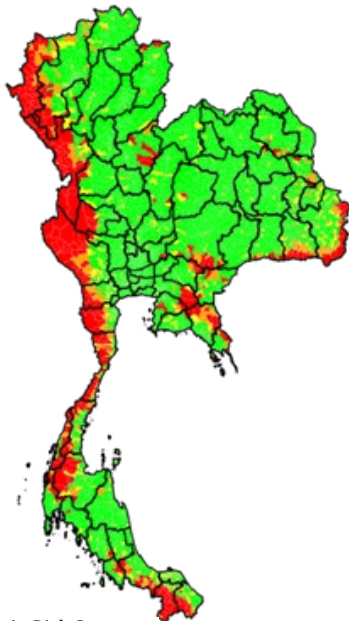
## DID YOU KNOW

**Coconut Surveillance**, our state-of-the-art mobile software app, has **helped surveillance officers in Zanzibar respond to more than 70,000 malaria cases since 2012.**

This open-source application uses simple SMS data entry, detects epidemic thresholds automatically, and geo-locates malaria cases for household follow-up by surveillance officers.

In the **Philippines**, RTI supported the development of the first Multi-Disease Elimination Plan (MDEP) 2024-2030 to **streamline and integrate strategies for selected vaccine preventable and infectious diseases** with malaria elimination efforts.

In **Thailand**, we helped **launch and implement the country's "1-3-7" surveillance strategy**, and now work to support outbreak response related to mobile and migrant populations.



### Malaria Risk Strata

- Local transmission
- At risk for transmission
- High risk for reintroduction
- Low risk for reintroduction

*Risk map of malaria transmission in Thailand produced using RTI's analytical models. Such visualizations of spatio-temporal data help countries to better target malaria interventions.*



## Our Approach

Partnering with national and sub-national malaria programs, we support comprehensive malaria prevention, control, surveillance, and elimination. With malaria as a bellwether for the overall functioning of the health system, we focus on strengthening systems for integrated service delivery. Integration of malaria into essential service delivery and data systems makes for a more efficient, inclusive, sustainable approach where appropriate. We also work across sectors such as education and the environment to implement and institutionalize efforts against malaria.

## Our Expertise

### Malaria Diagnostics and Case Management

We strengthen services and systems to improve high-quality diagnosis and case management in health facilities and communities. Examples include training and equipping clinical and laboratory staff to use microscopy and rapid diagnostic tests for malaria according to national protocols and developing social and behavior change with patients and providers.

### Malaria in Pregnancy (MiP)

In Guinea and Senegal, we work to integrate antenatal care and malaria prevention through intermittent preventive treatment of malaria in pregnancy (IPTp) and bed nets. The USAID Owod project in Senegal reaches out to women beyond facility-based care with community IPTp for even more impact.

### Proactive Community Case Management (ProCCM+)

In Senegal, RTI has enabled thousands of weekly rounds of home-based malaria screening and case management (known in French as PECADOM+). Of the fever cases found in the community that tested positive for malaria, 99.6% have been treated with the correct antimalarials. In Thailand, RTI supports active and reactive case detection of malaria around active foci and reported index cases.



## DID YOU KNOW

With support from RTI and the U.S. President's Malaria Initiative (PMI), Zanzibar has moved toward malaria elimination, reducing its malaria prevalence from more than 30% in 2005 to less than 1% today.

Under the USAID StopPalu and StopPalu+ projects in Guinea, we distributed more than 15 million bed nets and protected 300,000+ children annually by delivering 3.7 million doses of preventive malaria medicine during SMC campaigns.

### Seasonal Malaria Chemoprevention (SMC)

RTI plays an integral role in supporting national malaria programs and stakeholders to scale up SMC in Guinea and Senegal, leveraging community platforms to reach the unreached. Annual SMC campaigns distribute preventive medicines to children during the rainy season when the risk of malaria is greatest—which has proven effective in protecting them from malaria. We support all aspects of annual campaigns, from forecasting medicine and commodity needs to training and supervising health workers and sensitizing communities to the importance of the campaigns.

### Vector Control

We have extensive experience in the distribution of long-lasting insecticidal nets (LLINs), management of large-scale indoor residual spraying operations, larviciding, entomological surveillance, and insecticide resistance monitoring. U.S. President's Malaria Initiative-supported vector control that we implemented in partnership with ministries of health in Tanzania and Zanzibar have been among the most successful in Africa, reducing malaria prevalence to near zero in some areas and dramatically lowering malaria-related hospital and clinic admissions. We also provide technical assistance in the design, implementation, and detailed monitoring of LLIN distribution efforts through health facility, school, and community channels.



### Engaging Communities in the Fight to End Malaria

Through the USAID-funded StopPalu+ project in Guinea, we organized more than 2,300 community dialogues and advocacy meetings on malaria and other health issues, such as COVID-19. Community dialogues make community members a part of the solution for malaria prevention and control and build trust in the project and health officials, helping increase sustainability and self-reliance.

## Selected Publications

Our malaria experts conduct rigorous independent research and advance novel approaches based on local priorities. We support our own implementation research and rapid idea testing in conjunction with planned interventions, allowing us to identify new approaches and shift our efforts based on what is working. RTI participates in Roll Back Malaria and World Health Organization (WHO) working groups that develop global guidelines.

### Recent publications include:

- Adams, M. W., et al. (2022). Leaving no one behind: Targeting mobile and migrant populations with health interventions for disease elimination—a descriptive systematic review. *BMC Med* 20: article no. 172. <https://doi.org/10.1186/s12916-022-02365-6>
- Bisanzio, D., et al. (2023). Spatiotemporal dynamics of malaria in Zanzibar, 2015–2020. *BMJ Glob Health* 8: article no. e009566. <https://doi.org/10.1136/bmjgh-2022-009566>
- Lertpiriyasuwat, C., et al. (2021). Implementation and success factors from Thailand's 1-3-7 surveillance strategy for malaria elimination. *Malaria J* 20: 201. <https://doi.org/10.21203/rs.3.rs-295766/v1>
- Leuba, S. I., et al. (2022). Predictors of *Plasmodium falciparum* infection in the first trimester among nulliparous women from Kenya, Zambia, and the Democratic Republic of the Congo. *J Infect Dis* 225: 2002–2010. <https://doi.org/10.1093/infdis/jiab588>
- Mitchell, C. L., et al. (2022). Evaluating malaria prevalence and land cover across varying transmission intensity in Tanzania using a cross-sectional survey of school-aged children. *Malaria J* 21: 80. <https://doi.org/10.1186/s12936-022-04107-8>
- Mkali, H. R., et al. (2021). Risk factors associated with malaria infection identified through reactive case detection in Zanzibar, 2012–2019. *Malaria J* 20: 485. <https://doi.org/10.21203/rs.3.rs-936591/v1>
- Sudathip, P., et al. (2021). A foci cohort analysis to monitor successful and persistent foci under Thailand's Malaria Elimination Strategy. *Malaria J* 20: article no. 118. <https://doi.org/10.1186/s12936-021-03648-8>
- Sudathip, P., et al. (2021). Progress and challenges of integrated drug efficacy surveillance for uncomplicated malaria in Thailand. *Malaria J* 20: article no. 261. <https://doi.org/10.1186/s12936-021-03791-2>

## Selected Projects

### USAID *Notre Santé* (USAID, 2022–2027)

RTI works with Guinea's Ministry of Health to sustainably improve the quality, accessibility, and affordability of integrated health care. Efforts include malaria prevention and control, along with reproductive, maternal, newborn, child, and adolescent health, nutrition, and global health security.

### USAID *Owod* (USAID, 2021–2026)

RTI supports improved health outcomes for women and children by strengthening health system capacity. The Owod (“Being Healthy”) project provides technical assistance and grants to the Government of Senegal in five priority regions, which in turn carries out seasonal malaria chemoprevention, Proactive Community Case Management (ProCCM+), community prevention of malaria in pregnancy, and other routine malaria interventions to the population.

### USAID Country Health Information Systems and Data Use (CHISU) Program (JSI, 2022–2026)

As a subcontractor to JSI, RTI supports countries in sub-Saharan Africa, Latin America, and Southeast Asia to manage and use health information systems and data to make evidence-based decisions. In the DRC, Sierra Leone, Thailand, and Togo, we focus on strengthening malaria surveillance, data use, and epidemic control.

### PMI *Okoa Maisha Dhibiti* Malaria Activity—Save Lives, End Malaria (USAID, 2018–2023)

RTI supported Tanzania's National Malaria Control Program and the Zanzibar Malaria Elimination Program to strengthen malaria surveillance and monitoring to move the country toward malaria elimination.

### Inform Asia: USAID's Health Research Program (USAID, 2015–2023)

RTI worked with the national malaria programs of Thailand and Laos PDR to strengthen surveillance systems and promote the use of strategic information to accelerate malaria elimination.

### PMI *StopPalu* and *StopPalu+* (USAID, 2013–2022)

RTI supported Guinea's National Malaria Control Program to reduce childhood malaria prevalence from 44% in 2012 to 17% in 2021 through malaria case management, laboratory strengthening, interventions by community health workers, SMC, prevention of malaria in pregnancy, mass LLIN distribution, and disease surveillance.

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#### Learn more about our work

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