



**Partnership**  
To End Malaria

# World Mosquito Day 2021

## Key messages

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World Mosquito Day, observed annually on 20 August, is a commemoration of Sir Ronald Ross' discovery in 1897 that female *Anopheles* mosquitoes transmit malaria between humans.

This World Mosquito Day, we are raising awareness of the dangers of mosquitoes and malaria, as well as spotlighting the incredible innovations that protect people from malaria-carrying mosquitoes and the need for ongoing investment in transformative innovations to stay ahead of the evolving mosquito and parasite.

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*Partners are encouraged to use and amplify key messages, calls-to-action and supporting points below.*

### Key messages:

- Two decades of investments in malaria and game-changing innovations have saved 7.6 million lives and prevented 1.5 billion malaria cases. This has significantly reduced burdens on health systems worldwide and improved maternal and child health, survival and prosperity.
- Advances in technology have made malaria both preventable and treatable, yet over 400,000 people died from the disease in 2019, two-thirds of them children under the age of five and more than 90% in Africa.
- To ensure we continue to save lives and accelerate progress toward global goals, we need to stay a step ahead of an ever-adapting parasite and mosquito. This will only be possible through ongoing innovation in developing and scaling up a suite of tools that can deliver the greatest impact.
- By increasing investment in innovation, giving countries the ability to use the right set of tools to meet their needs, and committing to accelerate access to life-saving tools, we can end malaria and deliver a healthier, more prosperous world for all.

# The role of innovation in accelerating malaria eradication

- Since 2000, a set of transformative tools helped save 7.6 million lives, enabled elimination in 25 countries, and significantly drove down the global malaria burden.
- Game-changing innovations include:
  - Long Lasting Insecticidal Nets
  - Artemisinin-based Combination Treatments (ACTs)
  - Indoor Residual Spraying
  - Rapid Diagnostic Tests



# The need for greater innovation and transformative tools

- The current set of tools will not be enough to eradicate malaria, especially as growing insecticide and drug resistance threatens prevention, treatment, and elimination of malaria. We need ongoing investment in transformative tools to successfully eliminate malaria within a generation.
  - » Mosquito nets do not sufficiently protect people in places where some malaria-transmitting mosquitoes bite during the day; seasonal malaria chemoprevention does not work if families cannot access the intervention because they live in remote or hard-to-reach locations, or due to instability or conflict.
  - » We need innovation for streamlined medications to treat malaria more efficiently and effectively, to help ensure a diagnosis does not mean a death sentence. Powerful medicines are limited in their impact if regimens are complex, costly or challenging to follow, or if emergent resistance renders them ineffective.
  - » Insecticide and drug resistance both pose real threats to malaria elimination. The continued efficacy of ACTs is threatened by the emergence of resistance to artemisinin. This has been observed in the Greater Mekong Subregion, and is now increasingly seen in Africa.
  - » The partially effective RTS,S vaccine is the first vaccine against malaria in children under 5 and is currently in pilot implementation in 3 countries in Africa. There still is a need for a highly effective, all-ages vaccine.
    - Other vaccines are being researched, including the R21 vaccine, which uses a similar platform as RTS,S as well as vaccines using other platforms such as mRNA and monoclonal antibodies.
- We need innovation for streamlined interventions that can more efficiently and effectively treat malaria, to help ensure a diagnosis does not mean a death sentence.
- To ensure countries have options from which to choose which tools will meet their various needs, we need continuous investment in complementary and transformative tools including:
  - Vaccines
  - New Antimalarial Treatments
  - New vector control tools such as Attracting Targeted Sugar Baits
  - Ultra-Sensitive Rapid Diagnostic Tests
  - Genetically-Based Vector Control
- In combination with existing malaria prevention and treatment measures, an efficacious, preventative malaria vaccine for people of all ages would be a game-changer. With other exciting vaccine innovations in the pipeline, including the R21 vaccine, and the recent commitment from BioNTech to develop an mRNA vaccine. These innovations are creating momentum for the next wave of transformative tools and investments. Once these new vaccines are proven highly effective, we also need to ensure that countries are ready to use them.
- Research suggests use of genetically modified mosquitoes could also be a powerful and cost-effective approach to supplement existing interventions. In May 2021, [new guidance](#) from the World Health Organization set essential standards to inform future research and development on genetically modified mosquitoes, particularly addressing issues relating to ethics, safety, affordability and effectiveness. We must continue to invest in gene drive technologies, which have the potential to quickly eliminate local populations of malaria-causing mosquitoes.

- Equally important is continuing to scale up existing and new proven tools, such as Intermittent Preventive Treatment of pregnancy (IPTp) and Intermittent Preventive Treatment During Infancy (IPTi), new, dual-active ingredient insecticide-treated bed nets, parasite and mosquito genomics and seasonal chemoprevention. These effective interventions and innovative approaches are failing to reach millions of people at greatest risk.
- Community health workers are essential to delivering these effective tools, and innovation can support them in their ability to effectively respond to this disease.
  - Accurate rapid diagnostic tests for malaria don't achieve their intended effect if they are not available and accessible to communities that need them.
- The COVID-19 pandemic has reinforced how investing in real-time data is vital to effectively fight an infectious disease and to win the malaria fight, as digital tools helped malaria prevention continue and protected hard-won gains during the pandemic. As we move forward, we must leverage lessons from COVID-19 to innovate and adapt our responses and scale up our use of data.
- Developing and implementing innovative strategies to eliminate malaria also are critical to global success. China's recent malaria-free certification – propelled by its innovative 1-3-7 day detect, treat and control transmission strategy – was instrumental in China's success against malaria. Other countries are adopting and tailoring similar strategies to address their specific challenges, using innovative approaches and the right mix of complementary tools to accelerate progress against this preventable and treatable disease.



To read the RBM Partnership to End Malaria's innovation messaging, click [here](#). For all statements on the latest innovations, visit our newsroom at <https://endmalaria.org/news-events>