



Malaria Elimination Initiative

ISGlobal
Barcelona
Institute for
Global Health

Malaria Elimination Initiative

The Malaria Elimination Initiative generates scientific evidence, supports the application of this evidence into policy and practice, and builds capacity to **increase the impact of scientific research on the health of populations affected by malaria.**

Malaria is a parasitic disease that can be both treated and prevented. However, it is still a global priority, causing an estimated 247 million cases and 619,000 deaths only in 2021. Children below the age of five and pregnant women in sub-Saharan Africa carry the heaviest burden of this disease.

The Initiative works in areas that range **from clinical trials to implementation research, capacity building and knowledge management** to enhance practice and policy making. Through the establishment of collaborative agreements with academic institutions, international organisations and national governments, we respond to the needs and priorities of malaria affected countries and contribute to advancing towards the long-term goal of a malaria free world.

Based on this impact-oriented approach and its contributions in the field, **ISGlobal was designated as a World Health Organisation (WHO) Collaborating Centre for Malaria Control, Elimination and Eradication in 2013.**

Towards a malaria free world

Malaria, a longstanding source of death and suffering in most impoverished areas of the world, is a clear example of two sides of a global health story. On the one hand, as a result of substantial increases in available funds and the scale up of preventive tools, diagnostic testing and adequate treatment, huge advances were made in the

first 15 years of this century, with reductions up to 41% in malaria case incidence and a 62% decline in mortality rates. **12 countries have been certified as having eliminated malaria from their territories after 2000**, with another 25 countries and one territory now identified as advancing towards elimination of malaria by 2025.

However, maintaining the gains, and advancing towards global targets, has met challenges. **The COVID-19 pandemic arrived at a moment in which progress had already stalled**, impacting every aspect of the malaria landscape in the context of stressed health systems. WHO estimates that additional 13.4 million malaria cases can be attributed to disruptions resulting from the pandemic

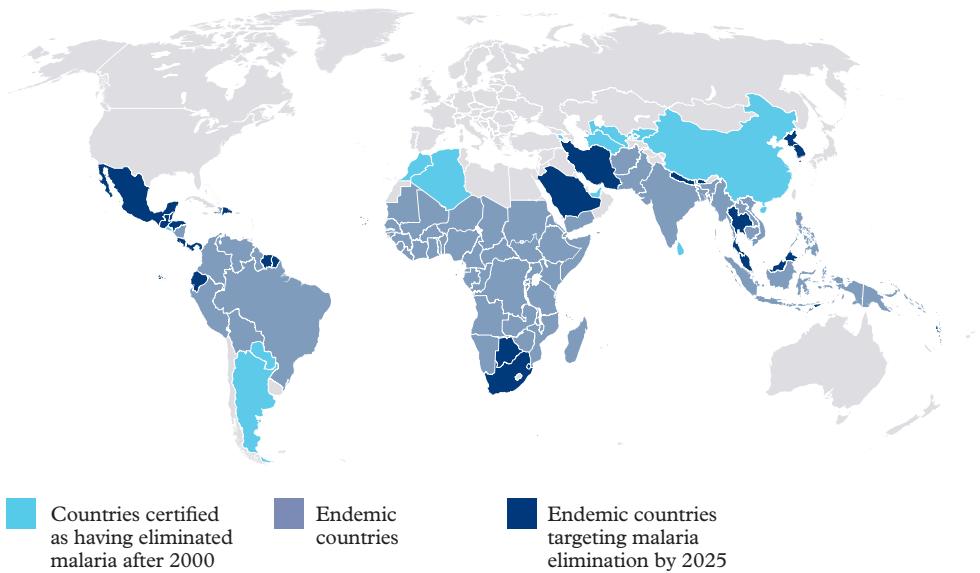
Country leadership, sustained funding and innovation are needed to advance the fight against malaria in highly endemic areas. This include not only the development of innovative tools, but addressing critical aspects linked to the implementation of antimalarial programs, such as appropriate technical guidance and policies, strong health systems, well trained staff, and political will.

Biological threats are varied and constantly evolving, such as parasites developing resistance to antimalarial drugs and evading rapid diagnostic tests, mosquitoes developing resistance to insecticides, and invasive species threatening to expanding malaria transmission to African urban areas. However, **even if innovation efforts are creating new tools, without eliminating malaria, the cycle will continue and novel challenges will certainly emerge.**

Advancing towards a malaria free world requires innovative approaches and consideration of the multiplicity of aspects that contribute to successes against this devastating disease, increasing equity and serving most vulnerable populations.

Classification of countries by level of malaria endemicity

Source: World Health Organization, 2021



Fighting malaria requires robust health systems, responsive surveillance and adequate staffing to ensure universal access to both malaria prevention and treatment

Country leadership is critical to define priorities, engage the affected communities, tailor strategies to the local context and guarantee sufficient financing for malaria programs

Research

The Malaria Elimination Initiative generates evidence for enhanced tools and practice, with a focus on high risk populations and populations that are persistently left behind by national health systems. It has a longstanding experience in working hand by hand with National Malaria Control Programs in the joint conceptualization, piloting and evaluation of programmatic implementation of malaria strategies, as well as in testing a novel generation of antimalarial tools. Studies led by the Initiative include, among other aspects, impact, cost effectiveness, feasibility and community acceptability.

Current activities include:

- Design and evaluation of innovative implementation approaches to overcome barriers for an optimal coverage and quality of malaria interventions.
- Developing and testing of the new generation of antimalarial tools and strategies to address most pressing challenges and threats in malaria.
- Support to policy makers in the definition of most appropriate technical approaches tailored to the local contexts.
- Evaluation of the impact of malaria interventions as implemented by the regular health systems to identify potential areas for improvement.

We focus on improving programmatic implementation of malaria strategies and developing novel antimalarial tools to address most pressing challenges



The MESA Alliance

ISGlobal hosts the MESA Alliance, a **collaborative platform dedicated to advancing the science of malaria eradication** by reviewing evidence, monitoring progress of scientific research, disseminating most up to date scientific advances and bringing the community together to identify key research gaps and fostering collaboration.

MESA supports the research efforts to better combat malaria by facilitating collaboration, understanding the research landscape and supporting the creation of evidence based policies and implementation strategies. It organizes communities of practice and consultative processes, such as '**malERA refresh**', which led to the publication of an updated malaria Research & Development agenda in 2017.

The Alliance has built a living database called **MESA Track** which captures more than 2,000 active research projects which represent the breadth of the malaria field. It develops thematic portfolios on priority research areas, and collaborates with National Control Programs to develop Country Research Portfolios with an emphasis on operational research to anticipate timing of results and identify evidence gaps.

MESA also generates communities of practice on most pressing threats in malaria and engages on the organization of other scientific fora such as the Keystone symposia and other conferences.

MESA is funded by the Bill & Melinda Gates Foundation.



Policy and Global Development

ISGlobal Malaria Elimination Initiative supports the use of scientific evidence in malaria policies and programming at global and national level, including streamlining the incorporation of emerging evidence into practice, facilitating national adoption and policy recommendation of new tools and strategies.

Activities include examination and analysis of scientific evidence in priority areas in **support of the global policy making process**, and direct collaboration with malaria endemic countries' leadership to develop **enhanced technical guidance**.

The initiative convenes the malaria community in a variety of fora dedicated to most pressing malaria problems and promotes knowledge sharing and collective reflection on how to best overcome them. It facilitates access to scientific tools and information to scientists in impacted countries and disseminates analytical work in different technical bodies, fostering collaboration across malaria stakeholders.

The Initiative accelerates malaria research and use of evidence in malaria policies and programming



Training and Education

A skilled human resource capacity to generate knowledge and to effectively manage and deliver the most effective control and elimination programmes is essential for achieving malaria elimination. ISGlobal trains public health professionals and researchers in malaria endemic countries and generates opportunities for **knowledge sharing** between scientists, implementers and representatives from international organisations.

Following the successful **leadership course “Science of eradication: malaria”**, organised as a collaboration between Harvard University, the Swiss Tropical and Public Health Institute and ISGlobal, the initiative currently focus is to promote a problem solving approach across public health professionals and researchers and developing innovative approaches to capacity strengthening, including mentorship programs, training ‘on the job’, peer-to-peer support, short courses on specific topics, etc.

The Initiative supports ISGlobal training programmes, including the **Doctoral Programme in Medicine: International Health Research Track, and the Masters Programme in Global Health**, in collaboration with the University of Barcelona.

Sufficient and well trained human resources is critical for the success in the fight against malaria

The WHO Global Technical Strategy for Malaria 2016-2030 aims at eliminating the disease in at least 35 new countries

Special Projects and Institutional Agreements

BOHEMIA

The Malaria Elimination Initiatives has promoted the evaluation of the endectocide drug ivermectin as a vector control tool to address malaria residual transmission.

Following the ISGlobal led collaborative publication of the *Ivermectin Roadmap* to evaluate and subsequently implement ivermectin mass drug administration, ISGlobal leads the BOHEMIA trial to evaluate the epidemiological and entomological impact of ivermectin Mass Drug Administration to humans and livestock.

Should results be positive, BOHEMIA is also designed to support normative guidance and policy change towards implementation of this endectocide drug as a new vector control tool.



WHO Collaborating Centre

Following years of fruitful collaboration, **ISGlobal was designated WHO Collaborating Centre in 2013, a designation that has been subsequently renewed 2017 and 2021.** The agreement envisages support to the Global Malaria Program in the process of global policy making and technical guidance, including review of available evidence, research landscape analysis, and gathering lessons from the past to inform current malaria strategies.

ADAM

In collaboration with the Mozambican National Malaria Control Program and the Manhiça Health Research Centre, ISGlobal is developing and piloting a **strategy to deliver through the regular health system two interventions to advance towards malaria elimination: Mass Drug Administration and Reactive Focal Drug Administration with foci investigation.** The delivery strategy included the creation of a data collection and visualization system to facilitate the monitoring and supervision of activities. Following the evaluation of the feasibility and operational performance of the pilot implementation, ADAM will support the national health authorities to develop a policy for implementing these interventions within the health system infrastructure.

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ISGlobal's mission is to promote health equity through excellence in research and the translation and application of knowledge. Our vision is a world in which all people can enjoy good health.

ISGlobal Initiatives

- Antibiotic Resistance Initiative**
- Chagas Initiative**
- Malaria Elimination Initiative**
- Maternal, Child and Reproductive Health Initiative**
- Urban Planning, Environment and Health Initiative**

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