

Summary report on the
**Regional meeting for
malaria and vector
control programme
managers from HANMAT
and PIAM-net countries**

Cairo, Egypt
6–8 December 2022



**World Health
Organization**

REGIONAL OFFICE FOR THE **Eastern Mediterranean**

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1. Introduction

In malaria endemic countries, programmes face challenges to implement timely vector control interventions. These challenges include an increase in malaria cases, frequent outbreaks of dengue and other vector-borne diseases, emergence of invasive *Anopheles stephensi* and *Aedes aegypti* mosquitos, disruptions associated with the COVID-19 pandemic and the limited amount of resources available.

To monitor the efficacy of antimalarial drugs, WHO supports countries through two subregional networks to produce timely, quality evidence on the efficacy of antimalarials, which is used to update national treatment policies. The two networks are:

- The Horn of Africa Network for Monitoring Antimalarial Treatment (HANMAT) for Djibouti, Saudi Arabia, Somalia, Sudan and Yemen in the WHO Eastern Mediterranean Region and Ethiopia, Eritrea and South Sudan in the WHO African Region, and
- The Pakistan, Iran (Islamic Republic of), Afghanistan malaria network (PIAM-net).

In 2019, the participating countries requested that the scope of the work of these two networks expand to include vector control and other biological threats, including insecticide resistance and invasive vectors.

The regional meeting of the malaria and vector control programme managers of the HANMAT and PIAM-net countries was held from 6 to 8 December 2022 in Cairo. The hybrid meeting included 68 participants (34 in person and 34 virtually) from national programmes for the control of malaria and other vector-borne diseases, WHO staff from the three levels of the Organization and experts from the United States Center for Disease Control, United States Agency for International Development (USAID), London School of Hygiene and Tropical Medicine (University of London), University of Liverpool, UK, and

Mazandaran University, Islamic Republic of Iran. During the three-day meeting, countries shared updates on achievements, experiences and challenges, and received recent policy and technical updates for malaria and vector surveillance and control.

The objectives of the meeting were to:

- review progress made, challenges and problems encountered in the implementation of malaria burden reduction and elimination strategies;
- review progress made, challenges and problems encountered in the implementation of vector surveillance and control in the countries of the Region;
- review results and updates on therapeutic efficacy studies of antimalarials;
- review results and updates on insecticide resistance monitoring and on response to invasive vectors in the Region;
- review results and provide updates on the situation of *Plasmodium falciparum* histidine-rich protein 2 and 3 (PfHRP2/3) gene deletion surveillance; and
- develop a plan of action to coordinate activities of the HANMAT and PIAM-net networks in 2023–2024.

2. Summary of discussions

Situation of malaria control and elimination in the Eastern Mediterranean Region

The Region is not meeting regional and global malaria control and elimination targets. Sudan, the country with the highest malaria burden in the Region, is facing an increase in its burden, and Pakistan experienced a massive malaria outbreak in 2022. The situation in the Region is due to various factors, including ongoing complex emergency

situations, insufficient investment in health and in control of malaria and other vector-borne diseases, economic hardship resulting from sanctions in some countries, insufficient human resources and weak malaria programmes.

In addition, countries in the Region are suffering from multiple biological threats, including invasions of *An. stephensi* in the countries in the Horn of Africa and Yemen and of *Ae. aegypti* in countries such as Afghanistan and the Islamic Republic of Iran, and an increasing risk of antimalarial resistance and insecticide resistance, *PfHRP2/3* gene deletion and insecticide resistance. Participants emphasized the importance of increasing investment and adopting an integrated approach to address vector-borne diseases in the Region.

An. stephensi in Horn of Africa countries and Yemen

The spread of *An. stephensi* in the African countries of the Region is increasing the risk of malaria and the cost of interventions, particularly in urban settings. To avoid creating a vertical, non-sustainable, project approach, there is a need for integrated vector surveillance and control. WHO will continue to provide technical support to countries, including conducting a training course in May 2023 on mosquito morphological identification at the Blue Nile National Institute for Communicable Diseases in Sudan.

Drug resistance

Technical updates were provided on monitoring artemisinin resistance and antimalarial therapeutic efficacy surveillance. The new WHO strategy to respond to antimalarial drug resistance in Africa has three objectives:

- improving the detection of resistance to ensure a timely response;

- delaying the emergence of resistance to artemisinin and artemisinin-based combination therapy (ACT);
- partnering drugs and limiting the spread of antimalarial drug-resistant parasites where resistance has been confirmed.

During the meeting, countries developed plans for surveillance on antimalarial resistance for 2023 and 2024 and identified sources of funding in line with the implementation of the new WHO strategy.

PfHRP2/3 gene deletion

Malaria programmes agreed to continue their surveillance of *PfHRP2/3* gene deletion with support from WHO and WHO collaborating centres. WHO is working with partners, including rapid diagnostic test suppliers and global funds, to increase the availability of alternative rapid diagnostic tests, in anticipation of the need to change tests due to the increasing prevalence of *PfHRP2/3* gene deletion.

From malaria to vector-borne diseases

Participants felt that the long history of malaria control programmes in the Region provides a foundation on which to address vector-borne diseases through adapted integrated strategies, such as for vector control, surveillance and community engagement. In addition, in countries approaching malaria elimination, a strong integrated vector-borne disease control programme is the only sustainable way to prevent the re-establishment of malaria transmission. Participants also emphasized the importance of convening HANMAT-PIAM-net meetings annually, with quarterly virtual meetings to share information and increase collaboration between national programmes, WHO, and national and international research institutions.

3. Recommendations

Integration of malaria programme with other diseases

- Coordinate efforts among countries, WHO and partners to integrate malaria programme with other vector-borne disease programmes, while maintaining a focused approach for specialized units such as vector control.

Integrated vector surveillance and control

- Revive and/or establish inter-ministerial integrated vector management steering committees, with support from WHO.
- Update vector control needs assessments to identify areas for strengthening vector surveillance and control.
- Prioritize functional sentinel sites for insecticide resistance monitoring, with support from WHO and partners.
- Develop and update insecticide regulations and registration procedures for developing public health pesticide management plans.

Planning and preparedness for outbreaks of vector-borne diseases

- Develop a national plan for preparedness and response to malaria and other vector-borne disease outbreaks with support from WHO, including from the WHO Health Emergencies programme, and from other partners.
- Include funding for outbreak preparedness and response in upcoming funding requests to the Global Fund.
- Stockpile essential prevention commodities, medicines and diagnostics at the country and regional level for emergencies.

Advocacy and resource mobilization

- Expand collaboration with regional and international donors for resource mobilization.
- Support countries in developing plans to decrease reliance on external resources while increasing the efficiency of available resources from external donors, particularly from the Global Fund.

Surveillance, risk mapping, monitoring and evaluation

- Support countries in completing the malaria programme reviews planned for 2023.
- Support and expedite the ongoing exercises to update risk mapping, including vector mapping and mapping environmental and climatic variables.
- Include points of entry in integrated vector surveillance, in collaboration with relevant sectors.

Cross-border collaboration


- Strengthen HANMAT and PIAM-net networking communications through regular regional meetings, in person and virtually, and, when needed, between bordering countries to facilitate cross-border collaboration for capacity-building, and data and experience sharing.

Communication and education

- Ensure that health care providers adhere to updated malaria case management guidelines.
- Translate technical guidelines and strategic documents into other languages, particularly Arabic, in coordination with WHO.

Laboratories and regional collaborating centres

- Consider establishing regional collaborating centres to address various aspects of biological threats, including *PfHRP2/3* gene deletion, invasive vectors, and insecticide and drug resistance, and to conduct capacity-building in these areas.
- Expand collaboration with international research and training institutions to build functional links with regional counterparts, expand research on priority areas of vector-borne diseases, create innovative tools for diagnosis and treatment, transfer knowledge, and build sustainable training capacities.



World Health Organization
Regional Office for the Eastern Mediterranean
Monazamet El Seha El Alamia Street,
Extension of Abdel Razak El Sanhoury Street
P.O. Box 7608, Nasr City
Cairo 11371, Egypt
www.emro.who.int