



Strengthening Vector Surveillance and Control

EMRO capacity-building activities

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World Health Organization Eastern Mediterranean Region (EMR)



Member States in Middle East, the North Africa, the Horn of Africa and Central Asia.



WHO Regional Office for the Eastern Mediterranean, Nasr City, Cairo

Formation	between 1948 and 1952
Type	Regional office of the World Health Organization
Legal status	Active
Parent organization	World Health Organization (WHO)
Website	www.emro.who.int

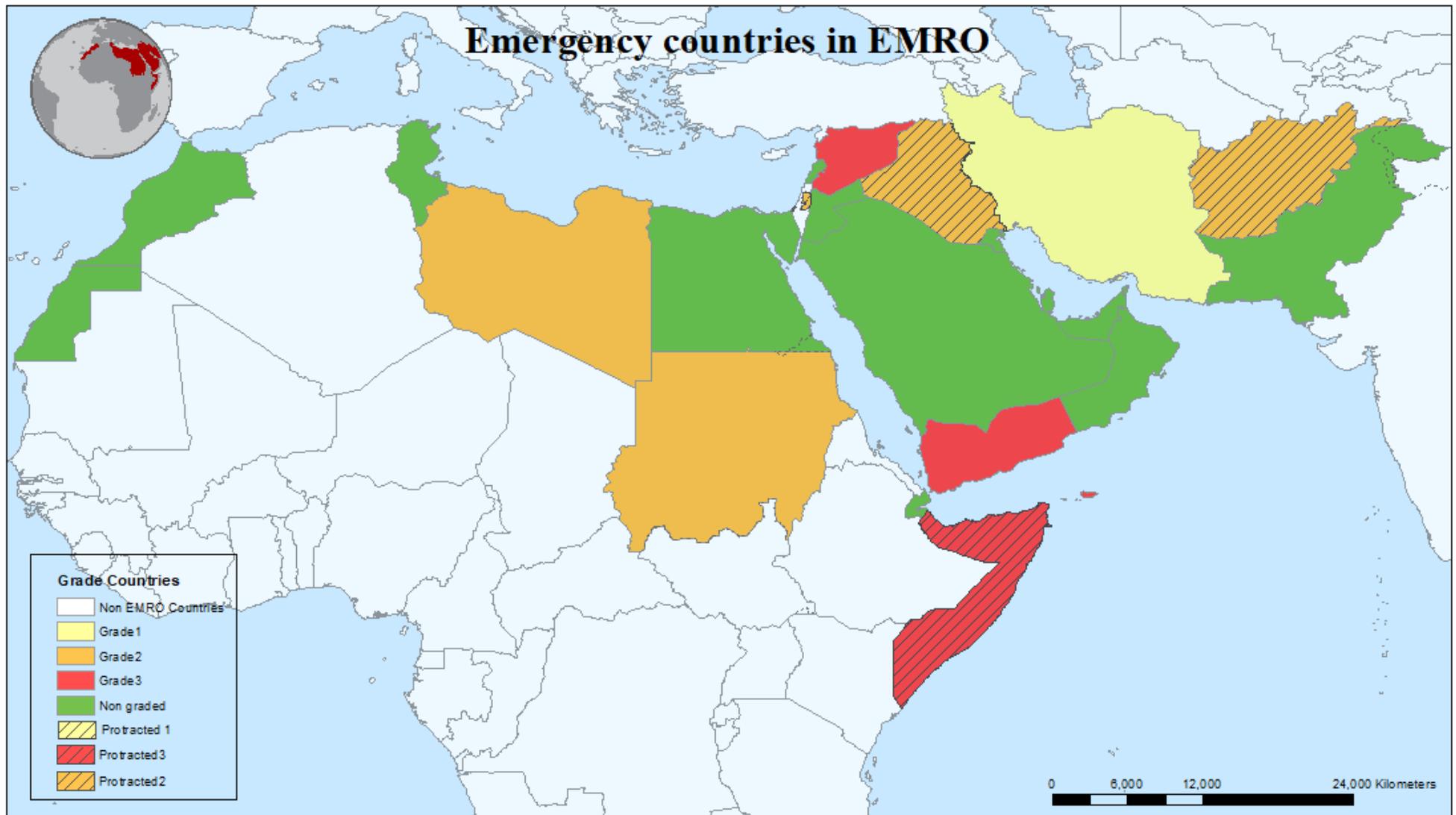


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Data source: World Health Organization
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 Information and Risk Assessment (HIM) Unit
 World Health Organization

Major VBDs in EMR, associated with **significant morbidity, disability & mortality**



Malaria



Yellow fever



Dengue

Chikungunya

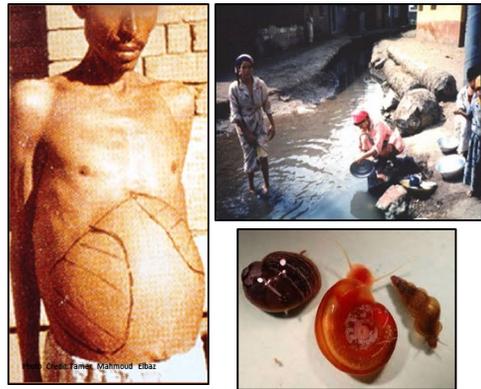


Leishmaniasis



Lymphatic filariasis

Rift Valley Fever



Schistosomiasis



Onchocerciasis/Sowda

Crimean-Congo Hemorrhagic fever



Challenges

- Inadequate infrastructure for vector surveillance and control, including at points of entry
- Human resources shortage, including specialized technical staff in the field of medical entomology
- High turnover of trained qualified entomology staff in some countries.
- Insufficient allocation of domestic and external resources to control malaria and other VBDs;
- Untimely allocation of funds to respond to outbreaks (*Aedes*-borne diseases); Preparedness plans before the outbreak; usually developed after the outbreak is underway.
- Widespread insecticide resistance particularly to pyrethroids,

Challenges

- Spread of invasive vectors *An. stephensi* and *Aedes* mosquitoes
- Humanitarian emergencies/insecurity,
- Limited contribution of research to the development of vector control policies and strategies
- Poor community engagement and health education messaging
- Lack or weak collaboration between the Health and other related sectors.

Challenges



EM Network on Vector Surveillance and Control

- General Objective:

To enhance vector surveillance including pesticide resistance management, and to promote evidence-based vector control in the WHO EM region.

- Specific Objectives:

- To strengthen national capacity for entomological surveillance
- To increase national capacity for planning and implementation of evidence-based vector control interventions;
- To provide technical assistance to member states for pesticide resistance management and promote information sharing and collaboration in the Region.

Current EMRO networks (sub-regional networks on antimalarial drug-resistance)

1. **HANMAT:** Horn of Africa Network for Monitoring Antimalarial Treatment represented by countries; Djibouti, Saudi Arabia, Somalia, Sudan and Yemen (EMR), Eritrea, Ethiopia and South Sudan (AFR)
2. **PIAM-Net:** Pakistan-Iran-Afghanistan Malaria Network.

➤ Support countries to:

- Monitor the efficacy and resistance of the nationally recommended antimalarial medicines
- Generate reliable evidence to inform malaria treatment policy; includes protocol development, processing ethical approval, training of the study teams, clinical monitoring, data analysis and report writing

Expand HANMAT-PIAM-Net TOR to include building capacity on entomology and vector control.

- In March 2019 Regional HANMAT-PIAM-Net workshop: Inclusion of vector control component in the sessions to update and raise awareness for programme managers on vector control in EMR countries, the regional vector control activities including training, available relevant WHO documents and recommendations on vector control, entomological surveillance.
- One of the recommendations of the 2019 Regional HANMAT-PIAM-Net workshop is to support countries to build human resource capacity for entomology and vector control;
 - Entomological surveillance including surveillance of invasive vectors such as *An. stephensi*
 - Insecticide resistance monitoring in future HANMAT-PIAM-net meetings.

EMRO capacity-building activities

Strengthening capacity for vector surveillance
2019 Training on entomological surveillance in Aden,
Yemen



Strengthening capacity for vector surveillance and control of invasive vectors at PoE. Online vector identification platform to support vector surveillance and control at PoE (2019)

 **World Health Organization**

PAGNet Ports, Airports and Ground Crossings Network

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Handbook

Vector Surveillance and Control at Ports, Airports, and Ground Crossings



 World Health Organization

International Health Regulations (2016)

Welcome samiraal2

Mosquito

Select group Mosquito Rodent Tick Flea

Can't go further Help | Contact Poe

Female mosquito (short or long palps but not hairy, antennae with few short hairs)



Male mosquito (always long and hairy palps, antennae with long and numerous hairs)



Regional activities achieving strengthening capacity on vector surveillance and control

Strengthening capacity for dengue vector surveillance and control (organised by the National Environment Agency (NEA)'s Environmental Health Institute (EHI) WHO CC in Singapore.)



A Regional TOT on IRS to control malaria & leishmaniasis (Morocco, October 2019).



Way Forward

- Use the current EMRO networks to link countries and experts to support in strengthening capacity for vector surveillance and control
- Collaborate with AFR countries included in the sub-regional network for support in vector surveillance/entomological investigations
- Strengthen networking with already setup in Africa for capacity building in entomological surveillance, which is inline with One WHO Africa Malaria Programme aimed towards strengthening capacity for malaria
- Explore of potential academic institutions in the region for strengthening vector surveillance and control and inclusion of these institutions in the network.

Thank you--Merci--شكرا



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