Annual meeting with National Malaria Programmes for countries in the Eastern and Southern Africa subregion

3-6 October 2023

Organized by: RBM/CRSPC

Updates: Yemen-Aden

Dr. Yasser Abdullah Bahshm
NMCP Manager
Program Implementation Status

**Strategic plans:** At least two Strategic plans were adopted since 2014: the first one 2014-2018 and the recent plan is for the period 2020-2024

During this periods; the epidemiological situation in Yemen is dramatically affected by the war and the emergency crises:

Yemen facing complex emergencies: worst humanitarian crises armed conflicts, political instability, economic deterioration, climate changes and health system fragmentation and COVID-19 Pandemic

But at the same time, a lot of achievements and a lot of challenges were shape the status of malaria program implementations
Outcome indicators compared to Objectives

2020-2024 plan objectives

➢ Reduce malaria case incidence and morbidity by at least 50.0% in highly endemic areas, particularly in Tehama region, compared with 2018 by the end of 2024.
➢ Reduce malaria-associated mortality to near zero.
➢ Sustain malaria reduction in Hadhramout region by less than 1% and prevent the reintroduction of malaria to Socotra to remain free of malaria.
➢ Prevent malaria outbreaks in IDP-hosting areas and epidemic-prone districts

Outcome Indicators

➢ The total estimated malaria cases in 2021 were 979,967 cases. (WHO-WMR 2021)
➢ Data of Malaria deaths was not well documented
➢ Malaria case incidence was higher in 2021 than in 2015, (Yemen was not on track for the GTS milestone)
Trends of Malaria Epidemiology Indicators of Yemen (2015-2021)
(WORLD MALARIA REPORT 2022)

<table>
<thead>
<tr>
<th>WHO region Country/area</th>
<th>Year</th>
<th>Population denominator for incidence and mortality rate</th>
<th>Cases Lower</th>
<th>Cases Point</th>
<th>Cases Upper</th>
<th>Deaths Lower</th>
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<td>513 816</td>
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<td>2016</td>
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<td>468 000</td>
<td>661 252</td>
<td>951 000</td>
<td>710</td>
<td>1 681</td>
<td>3 180</td>
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<td>2017</td>
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<td>528 000</td>
<td>747 173</td>
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<td>810</td>
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<td>2019</td>
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<td>900</td>
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<td>2020</td>
<td>20 814 170</td>
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<td>2021</td>
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<td>2 455</td>
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</table>
In 2022 there is a total of 276,765 suspected cases of malaria through eIDEWs system. 261,295 cases were tested either by microscope or RDTs and 30,571 were confirmed as positive cases. Out of these 261,295 investigated cases, there are 166,547 cases were tested by microscope where there are 22,987 diagnosed as positive while there are 94,748 were tested by microscope and 7584 were diagnosed as positive. Another 15,470 cases were reported as probable cases through eIDEWs system. There are 18,965 cases were tested by CHVs of ICCM and 840 cases are positive by RDTs. Also there are 180 cases were investigated through the ACD in the pre elimination areas and 42 cases were positive.
Malaria Data in 2022

Malaria Tested and confirmed cases by Governorate (1-52 w) 2022

- Aden: 144933
- Taiz: 42541
- Lahj: 36300
- Al-Hodaidah: 22084
- Mareb: 7307
- Al-Dalea: 4594
- Shabwah: 2705
- Abyan: 473
- Hadramout: 208
- Al-Baidha: 59
- Hadramout Wady: 47
- Al-Mahra: 44

Malaria Positive cases by Epidemiological week (1-52 w) 2022

- Week 1: 1109
- Week 2: 859
- Week 3: 601
- Week 4: 476
- Week 5: 684
- Week 6: 789
- Week 7: 836
- Week 8: 830
- Week 9: 578
- Week 10: 630
- Week 11: 489
- Week 12: 425
- Week 13: 553
- Week 14: 653
- Week 15: 300
- Week 16: 487
- Week 17: 496
- Week 18: 546
- Week 19: 506
- Week 20: 615
- Week 21: 607
- Week 22: 491
- Week 23: 455
- Week 24: 406
- Week 25: 419
- Week 26: 435
- Week 27: 486
- Week 28: 532
- Week 29: 476
- Week 30: 572
- Week 31: 583
- Week 32: 489
- Week 33: 637
- Week 34: 633
- Week 35: 606
- Week 36: 684
- Week 37: 638
- Week 38: 767
- Week 39: 639
- Week 40: 760
- Week 41: 732
- Week 42: 623
Main Achievements

• Improvement of case management through scale-up use of RDTs and antimalarial drugs.
• Distribution of LLINs to cover all the population at risk.
• Implementation of IRS campaigns in the targeted districts
• Training of physicians and HWs on malaria and dengue case management
  Training of 4 NMCP staff for entomological surveillance in Ethiopia and Djibouti
• Training 425 CHVs for ICCM in the targeted districts with implementation of bi
  annual meetings and quarterly visit to assess and follow up their work.
• Training of eIDEWS focal points at all the HFs about the correct insertion of
  malaria data in the system.
• Implementation of active case surveillance in the pre elimination areas
• Implementation of the routine entomological surveillance in the sentinel sites.
• Develop the MPS 2020-2024 and starting the MPR to update the strategy.
• Conduct operational researches
• Partnership with GF, WHO, IOM, KSR, WB and other local NGOs
Best Practices

1-Coordination with eIDEWS for Surveillance and Malaria data Reporting:

**Malaria Data Reporting in free areas in Yemen (1-52 w) 2022**

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<th>5903</th>
<th>21138</th>
<th>15479</th>
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<tbody>
<tr>
<td>RDT_Positive</td>
<td>Microscope_Positive</td>
<td>Probable Cases</td>
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</table>

**Positive cases by gender**
- Male: 43.6%
- Female: 56.4%

**Positive cases by age group**
- Less than 30: 17.3%
- 30 and over: 82.7%

**Positive cases by parasite type**
- P. falciparum: 69.6%
- P. vivax: 30.4%

**Malaria positive cases by week number (1-52) 2022**

**Positive cases by Governorate**

**Weekly Bulletin in free areas in Yemen, Week 39, 2022**

**Highlights:**
- Reporting rate for EPI-DEWS, HP: 95.30% (952)
- No of reported EPI-DEWS HP: 29
- No of reported action HP: 136
- No of validated true alert: 417

**Lead cases of morbidity mortality in EPI-Week 39, 2022**
- Acute respiratory infections: 54.46%
- Other Acute Diarrhea: 22.92%
- Lower Respiratory Tract Infections: 12.18%
- Malaria: 3.79%

**People infected with malaria by province, 2022 Week 39**

**Distribution of reporting routine and rates by Governorate, about week 39**

**Proportion of reporting routine and rates by Governorate, 2022 Week 39**

**Proportion of reporting routine and rates by Governorate, 2022 Week 39**

**Proportion of reporting routine and rates by Governorate, 2022 Week 39**
Best Practices...

2-Operational research and Entomological Surveillance for the new vector (Anopheles Stephensi):
Best Practices...

3-Distribution of LLINs in IDPs camps:

- The figures shown are according to the available data from the field teams.
- Some teams are in areas out of services and couldn't send their data till now.
Best Practices...

4-Conduct the Pf HRP2 gene deletion study:
Best Practices...

5-Use of online daily electronic data report for the activities:

- The figures shown are according to the available data from the field teams.
- Some teams are in areas out of services and couldn't send their data till now.
Best Practices...

6-Workshop for the IVM Steering Committee and conduct of TOT Entomological Surveillance Training Courses:
Main challenges

- Security and political instability
- Program fragmentation
- IDPs and refugees
- Climate changes, cyclones
- Identification of the new invasive vector for malaria (Anopheles Stephensi)
- Capacity Building, staff and infrastructure, GIS, Entomologist
- No plan or fund for the Epidemic Preparedness and response
- Anti malaria drug resistance was not properly studied
- Wide area with population dispersion
- Burden of the other VBDs mainly dengue fever and Chikungunya
- Quality of data and untrained EIDEWS focal points for malaria reporting.
- Limited budget for malaria control and prevention
## Gap analysis 2024

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<td><strong>LLINs (# number of commodities)</strong></td>
<td>848,516</td>
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<td><strong>IRS US$</strong></td>
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<td><strong>ACTs (# number of commodities)</strong></td>
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<td>89,130</td>
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<td><strong>RDTs (# number of commodities)</strong></td>
<td>247,250</td>
<td>247,250</td>
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<tr>
<td><strong>Total US$ need essential services</strong></td>
<td>49,512,457</td>
<td>15,006,212</td>
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<td><strong>ICCM training</strong></td>
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<td>737 focal point</td>
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<td><strong>Total US$ need malaria strategic plan</strong></td>
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<td>Item</td>
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<tr>
<td>LLINs (# number of commodities)</td>
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# Gap analysis 2026

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<td>Activity</td>
<td>Support type (TA or financial)</td>
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<td>An. Stephensi surveillance</td>
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<td>Capacity building of the surveillance staff, DHIS2</td>
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<td>Establishment of the active case surveillance unit, training, infrastructure, reporting forms</td>
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Thank you