I. Epidemiological profile

Population (UN Population Division) 2017 %
High transmission (≥ 1 case per 1000 population) 7.5M 51
Low transmission (0-1 case per 1000 population) 7.2M 49
Malaria free (0 cases) 0 -
Total 14.7M

Parasites and vectors
Major plasmodium species:
- P. falciparum: 100 %
- P. vivax: 0 %

Major anophales species:
- An. arabiensis
- An. funestus

II. Intervention policies and strategies

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Policies/Strategies</th>
<th>Yes</th>
<th>Year adopted</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITN</td>
<td>ITNs/LLINs distributed free of charge</td>
<td>Yes</td>
<td>2005</td>
</tr>
<tr>
<td></td>
<td>ITNs/LLINs distributed to all age groups</td>
<td>Yes</td>
<td>2012</td>
</tr>
<tr>
<td>IRS</td>
<td>IRS is recommended</td>
<td>Yes</td>
<td>2004</td>
</tr>
<tr>
<td></td>
<td>DDT is used for IRS</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Larval control</td>
<td>Use of Larval Control</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>IPT</td>
<td>IPT used to prevent malaria during pregnancy</td>
<td>Yes</td>
<td>2005</td>
</tr>
<tr>
<td>Diagnoses</td>
<td>Patients of all ages should receive diagnostic test</td>
<td>Yes</td>
<td>2006</td>
</tr>
<tr>
<td></td>
<td>Malaria diagnosis is free of charge in the public sector</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>ACT is free for all ages in public sector</td>
<td>Yes</td>
<td>2006</td>
</tr>
<tr>
<td></td>
<td>Single dose of primaquine (0.25 mg base/kg) is used as a gametocidal medicine for P. falciparum</td>
<td>Yes</td>
<td>2015</td>
</tr>
<tr>
<td></td>
<td>System for monitoring of adverse reaction to antimalarials exists</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ACD at community level of febrile cases (pro-active)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mass screening is undertaken</td>
<td>Yes</td>
<td>2012</td>
</tr>
<tr>
<td></td>
<td>Uncomplicated P. falciparum cases routinely admitted</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Case and foci investigation undertaken</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Antimalaria treatment policy
- First-line treatment of unconfirmed malaria: AL 2016
- First-line treatment of P. falciparum: AL+PQ 2016
- Treatment of severe malaria: AL, AP (QN) 2016
- Treatment of P. vivax: AL+PQ(14d) 2016

Therapeutic efficacy tests (clinical and parasitological failure, %)

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Year</th>
<th>Min</th>
<th>Median</th>
<th>Max</th>
<th>Follow-up</th>
<th>No. of studies</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>2013-2018</td>
<td>0</td>
<td>0</td>
<td>2.4</td>
<td>28 days</td>
<td>5</td>
<td>P. falciparum</td>
</tr>
<tr>
<td>DHA-PQ</td>
<td>2016-2016</td>
<td>1</td>
<td>0.75</td>
<td>2.5</td>
<td>42 days</td>
<td>2</td>
<td>P. falciparum</td>
</tr>
</tbody>
</table>

Resistance status by insecticide class (2010-2017) and use of class for malaria vector control (2017)

<table>
<thead>
<tr>
<th>Insecticide class</th>
<th>Years</th>
<th>(%) sites</th>
<th>Vectors</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbamates</td>
<td>2005-2013</td>
<td>0% (3)</td>
<td>-</td>
<td>No</td>
</tr>
<tr>
<td>Organophosphates</td>
<td>2010-2013</td>
<td>14.6% (4)</td>
<td>An. arabiensis</td>
<td>No</td>
</tr>
<tr>
<td>Organochlorines</td>
<td>2010-2012</td>
<td>100% (5)</td>
<td>An. arabiensis</td>
<td>No</td>
</tr>
<tr>
<td>Pyrethroids</td>
<td>2010-2012</td>
<td>11.5% (9)</td>
<td>An. arabiensis</td>
<td>Yes</td>
</tr>
</tbody>
</table>

1 ACD: accessible cases of which resistance confirmed and total number of sites that reported data 1
2 A principal vector that exhibited resistance
3 Sites used for malaria vector control in 2007
III. Charts

Sources of financing

Government expenditure by intervention in 2017

IV. Coverage

Coverage of ITN and IRS

Cases tested and treated in public sector

V. Impact

Cases treated

Test positivity

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**Government expenditure by intervention in 2017**

- Insecticides & spray materials
- ITNs
- Diagnostic testing
- Antimalarial medicines
- Monitoring and evaluation
- Human resources & technical assistance
- Management and other costs

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**Sources of financing**

- WHO/UNICEF
- USAID/PMI
- Worldbank (USD)
- Global Fund (USD)
- Government contribution
- Others

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**Coverage of ITN and IRS**

- At high risk protected with ITNs
- At high risk protected with IRS
- % of the population who slept under an ITN the previous night (survey)
- % of households with at least 1 ITN (survey)

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**Cases tested and treated in public sector**

- Suspected cases tested
- Antimalarials distributed vs reported cases
- ACTs distributed vs reported P. f. cases
- Primaquine distributed vs reported P. v. cases
- % of <5 fever cases who had a finger/ heel stick (survey)
- ACTs as % of all antimalarials received by <5 (survey)

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**Cases treated**

- % fever cases <5 seeking treatment at public HF (survey)
- Reporting completeness

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**Test positivity**

- Slide positivity rate
- RDT positivity rate
- % <5 with a positive microscopy slide on the day of the survey
- % <5 with a positive rdt on the day of the survey
V. Impact

Confirmed malaria cases per 1000 and ABER

Malaria admissions and deaths

Footnotes

(est.): WHO estimates based on the survey

World Malaria Report 2018