I. Epidemiological profile

Population (UN Population Division) 2017%

- High transmission (>1 case per 1000 population) 4.7M 29%
- Low transmission (0-1 case per 1000 population) 8.3M 50%
- Malaria free (0 cases) 3.5M 21%
- Total 16.5M

Parasites and vectors

- Major plasmodium species: P.falciparum: 100 (%), P.vivax: 0 (%)
- Major anophiles species: An. arabiensis, An. gambiae, An. funestus

Reported confirmed cases (health facility): 515,624
Estimated cases: 1.2M [825.9K, 1.7M]
Confirmed cases at community level: 151,884
Confirmed cases from private sector: -
Reported deaths: 527
Estimated deaths: 3.2K [93, 6.4K]

II. Intervention policies and strategies

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Policies/Strategies</th>
<th>Yes/No</th>
<th>Year adopted</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITN</td>
<td>ITNs/LLINs distributed free of charge</td>
<td>Yes</td>
<td>2009</td>
</tr>
<tr>
<td></td>
<td>ITNs/LLINs distributed to all age groups</td>
<td>Yes</td>
<td>2009</td>
</tr>
<tr>
<td>IRS</td>
<td>IRS is recommended</td>
<td>Yes</td>
<td>1947</td>
</tr>
<tr>
<td></td>
<td>DDT is used for IRS</td>
<td>Yes</td>
<td>2004</td>
</tr>
<tr>
<td>Larval control</td>
<td>Use of Larval Control</td>
<td>Yes</td>
<td>2012</td>
</tr>
<tr>
<td>IPT</td>
<td>IPT used to prevent malaria during pregnancy</td>
<td>Yes</td>
<td>1997</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>Patients of all ages should receive diagnostic test</td>
<td>Yes</td>
<td>2008</td>
</tr>
<tr>
<td></td>
<td>Malaria diagnosis is free of charge in the public sector</td>
<td>Yes</td>
<td>2008</td>
</tr>
<tr>
<td>Treatment</td>
<td>ACT is free for all ages in public sector</td>
<td>Yes</td>
<td>2008</td>
</tr>
<tr>
<td></td>
<td>The sale of oral artemisin-based monotherapies (oAMTs) is used as gametocidal medicine for P.falciparum</td>
<td>Yes</td>
<td>2015</td>
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<tr>
<td></td>
<td>Single dose of primaquine (0.25 mg base/kg) is used</td>
<td>Yes</td>
<td>2015</td>
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<tr>
<td></td>
<td>Primquine is used for radical treatment of P. vivax</td>
<td>Yes</td>
<td>2015</td>
</tr>
<tr>
<td></td>
<td>G6PD test is a requirement before treatment with primaquine</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Directly observed treatment with primaquine is undertaken</td>
<td>Yes</td>
<td>2015</td>
</tr>
<tr>
<td></td>
<td>System for monitoring of adverse reaction to antimalarials exists</td>
<td>Yes</td>
<td>2009</td>
</tr>
<tr>
<td>Surveillance</td>
<td>ACD for case investigation (reactive)</td>
<td>Yes</td>
<td>2012</td>
</tr>
<tr>
<td></td>
<td>ACD at community level of febrile cases (pro-active)</td>
<td>Yes</td>
<td>2012</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>Uncomplicated P. vivax cases routinely admitted</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Case and foci investigation undertaken</td>
<td>Yes</td>
<td>2017</td>
</tr>
<tr>
<td></td>
<td>Case reporting from private sector is mandatory</td>
<td>No</td>
<td>-</td>
</tr>
</tbody>
</table>

Antimalaria treatment policy

- First-line treatment of unconfirmed malaria: AL 2004
- First-line treatment of P.falciparum: AL 2004
- For treatment failure of P.falciparum: QN 2004
- Treatment of severe malaria: QN 2004
- Treatment of P.vivax: -
- Dosage of primaquine for radical treatment of P. vivax: -
- Type of RDT used: PF + all species (Combo)

Therapeutic efficacy tests (clinical and parasitological failure, %)

- Medicine     Year adopted     Min     Median     Max     Follow-up No. of studies Species
- AL           2010-2014      0       2.55       9.1      28 days     14             P. falciparum
- DHA-PPQ 2016-2016      0       0         0       28 days     3             P. falciparum
- DHA-PPQ 2010-2014      0       0         0.9      42 days     3             P. falciparum

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 ( %) sites¹</th>
<th>Vectors ²</th>
<th>Used ³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbamates</td>
<td>2012-2017 18.75% (52)</td>
<td>An. funestus s.l., An. gambiae s.l.</td>
<td>No</td>
</tr>
<tr>
<td>Organochlorines</td>
<td>2011-2017 14.71% (34)</td>
<td>An. gambiae s.l.</td>
<td>Yes</td>
</tr>
<tr>
<td>Organophosphates</td>
<td>2012-2017 6.45% (31)</td>
<td>An. funestus s.l., An. gambiae s.l.</td>
<td>Yes</td>
</tr>
<tr>
<td>Pyrethroids</td>
<td>2011-2017 38.46% (39)</td>
<td>An. funestus s.l., An. gambiae s.l.</td>
<td>Yes</td>
</tr>
</tbody>
</table>

¹Percent of sites for which resistance confirmed and total number of sites that reported data (n)
²Principal vectors that exhibited resistance
³Class used for malaria vector control in 2017
III. Charts

Sources of financing

IV. Coverage

Coverage of ITN and IRS

V. Impact

Cases treated

Test positivity

V. Impact

Cases treated

Test positivity


Source: DHS 2011, 2015, MICS 2014


Government expenditure by intervention in 2017

Contribution($USm)

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

% fever cases <5 seeking treatment at public HF (survey)
% of households >= 1 ITN (Modelled)
At risk protected with IRS
% of the population who slept under an ITN the previous night (survey)
% of the population with access to an ITN (survey)
% of fever cases <5 who had a finger/ heel stick (survey)
ACTs as % of all antimalarials received by <5 (survey)
ACTs distributed vs reported P. f. cases
Primaquine distributed vs reported P. v. cases
% <5 fever cases who had a finger/ heel stick (survey)
ACTs distributed vs reported cases
Suspected cases tested
Reporting completeness
Slide positivity rate
RDT positivity rate
V. Impact

Confrm malaria cases per 1000 and ABER

Cases per 1000

ABER (%)


0 5 10 15 20 25 30 35 40 45 50

0 2.5 5 7.5 10 12.5

Admissions

Deaths


0k 20k 40k 60k 80k

0k 1k 2k 3k 4k

Admissions (all species) Admissions (P. vivax) Deaths (all species) Deaths (P. vivax)

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