

Abstract

Descriptive Analysis of Malaria Surveillance System Data, Yemen, 2011-2015

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Background: Malaria remains one of the most serious health problems in Yemen where 68% of population is living in malaria risk areas. An Integrated Malaria Surveillance System (IMSS) was introduced in 2009 to improve reporting.

Objective: To describe the epidemiology of malaria and identify groups at risk.

Methods: Data for 2011-2015 was obtained from the National Malaria Control Program (NMCP). According to the NMCP Guidelines, confirmed malaria case is defined as a case that is positive by microscopy or rapid test. We calculated incidence rate (IR) by age group, sex, type of plasmodium, seasonality and population at risk using projections from the 2014 Central Statistical Organization data.

Results: Although the overall malaria IR dropped from 11/1000 in 2011 to 5 in 2015, the IR among < 5 children increased from 8 to 15/1000 and the percentage of confirmed cases increased from 0.64% to 0.83%. Among pregnant women, the IR increased from 4/1000 in 2011 to 6 in 2014 but decreased to 2 in 2015. Two thirds of malaria cases were reported among males and from the coastal governorates. Plasmodium Falciparum accounted for 99% of cases.

Conclusions: Despite IR dropped from 2011 to 2015, such drop might not reflect improvement in control and prevention measures, but could reflect underreporting due to political instability, war situation and poor access to health facilities. Proper targeting especially of coastal areas by insecticide treated bed nets and indoor residual spraying is necessary. Strengthening of surveillance system for high-risk groups i.e. <5 children and pregnant women is recommended. A qualitative research should investigate reasons behind the predominance of malaria among males. Further IMSS evaluation is recommended.

(*iproc* 2018;4(1):e10637) doi: [10.2196/10637](https://doi.org/10.2196/10637)

Edited by Y Khader; this is a non-peer-reviewed article. Submitted 29.03.18; accepted 29.03.18; published 29.03.18.

Please cite as:

Anam L

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iproc 2018;4(1):e10637

URL: <http://www.iproc.org/2018/1/e10637/>

doi: [10.2196/10637](https://doi.org/10.2196/10637)

PMID:

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