



Government of Malawi
Ministry of Health

July 2017 to June 2018 Malaria Report to SWAp

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List of Acronyms and Abbreviation

ACT	Artemisinin-based Combination Therapy
AMREF	African Medical and Research Foundation
ASAQ	Artesunate Amodiaquine
BCC	Behaviour Change and Communication
CAPeT	Commodity Accountability Performance Tracking
CVA	Community Voice Action
DHO	District Health Office
DHIS2	District Health Information System version 2
DHMT	District Health Management Team
DQA	Data Quality Audit
HAC	Health Advisory Committee
HMIS	Health Management Information System
HSA	Health Surveillance Assistant
ITN	Insecticide Treated Net
IPTp	Intermittent preventive therapy in pregnancy
IVM	Integrated Vector Management
IRS	Indoor Residual Spray
LA	Artemether Lumefantrine
LLIN	Long Lasting Insecticide Net
LMIS	Logistics Management Information System
MoH	Ministry of Health
MiP	Malaria in Pregnancy
MIS	Malaria Indicator Survey
MIR	Malaria Incidence Rate
mRDT	Malaria Rapid Diagnosis Test

NMCP	National Malaria Control Programme
ONSE	Organized Network of Services for Everyone
OPD	Out Patient Department
OTSS	Outreach Training and Supportive Supervision
PMI	President's Malaria Initiative
PSM	Procurement Supply Management
SBCC	Social Behaviour Change and Communication
TOR	Terms of Reference
TWG	Technical Working Group
USD	United States of America
WCBA	Women of Child Bearing Age

1. Introduction

Malaria is endemic throughout Malawi and the entire population lives in high malaria transmission areas. Malaria continues to be a major public health problem. Approximately 34% of all outpatient visits and 45% of all hospitalization is due to malaria.

Malaria is the leading cause of morbidity and mortality in children under age 5 and among pregnant women. It is estimated that Malawi experiences about 6 million episodes of malaria annually (HMIS, 2017).

Generally, Malawi has seen changes in its malaria trend because of the high investment in malaria control and improvement in data management. Nationally, malaria incidence has consistently decreased in recent years despite district-level variations. Records from the District Health Information System Two (DHIS2) from 2010-2015, shows a decrease in malaria cases from as high as 484 malaria cases per 1000 population in 2010 to 323 cases per 1000 in 2017. While the decrease in cases could be attributed to scale up of interventions but the introduction of malaria Rapid Diagnostic Tests (mRDTs) in 2011 at facility level also contributed. Despite these reductions in malaria incidence, even areas with the least burden in Malawi continue to record between 100-200 cases per 1,000 population (DHIS2 2017).

Malawi has conducted four Malaria Indicator Surveys (MIS) in 2010, 2012, 2014 and 2017 that have recorded overall declining trends for anemia and parasite prevalence among children less than five years of age. A substantial decrease in the prevalence of severe anemia in this age group was noted between 2010 and 2017, from 12% (2010 MIS) in 2010 to 5% (2017 MIS) in 2017. In terms of malaria parasite prevalence, there has been an overall decrease from 43% in 2010 to 24% in 2017. Also, consistent with the decrease in the malaria incidence, the number of malaria-related deaths in Malawi has declined by 66% in recent years, from a peak of 59 deaths per 100,000 population in 2010 to 19.6 deaths per 100,000 population in 2017 (DHIS2 2017).

2. Key interventions implemented

The major interventions implemented during the reporting period are effective and prompt diagnosis and treatment, integrated vector management (IVM) and malaria in pregnancy (MiP). These were supported by cross cutting interventions, which include behavior change communication (BCC) and advocacy, robust Surveillance Monitoring, Evaluation and Operational Research and program management.

2.1 Malaria Case management

2.1.1 Achievements

ACTs treatment policy was adopted in 2007 with LA as first line treatment. In 2013, the treatment policy was revised to include use of injectable Artesunate for treatment of severe malaria. During the reporting period, the NMCP managed to:

- Conduct refresher training of health workers on case management
- Conduct orientation of health workers (Patient attendants) on mRDTs
- Ninety nine percent of suspected malaria cases are tested either through microscopy or mRDT
- Conduct four OTSS – Supervision to facilities
- Roll out mRDTs to all village clinics at community level.

2.1.2 Challenges:

- Mismanagement of malaria cases in Private Clinics
- Mismatch between confirmed malaria cases and LA consumption (dispensed LA)
- Total OPD attendance equal to total number of suspected malaria cases in some facilities (mRDT is not a screening tool)
- Poor health workers' adherence to case management policies
- Some patients still being treated for malaria either on clinical grounds with negative test results or without any malaria testing done
- Most districts continue using injectable quinine than injectable artesunate
- Low utilization of ASAQ compared to quinine oral
- Confirmation of severe malaria with mRDTs
- Inadequate supervisions to facilities by DHMTs

2.2 Procurement and Supply Chain Management (PSM)

2.2.1 PSM Achievements

During the implementing year, the program has managed to:

- Conduct 12 routine facility distribution of malaria commodities rounds (1 every month)
- Conduct national quantification for Malaria Commodities and also 1 biannual quantification review of malaria commodities.
- Conduct 3 rounds of quarterly pipeline update
- Develop and disseminate 12 monthly stock status reports of Malaria commodities to stakeholders for planning and decision making
- Conduct redistribution of Malaria Commodities
- Develop a Commodity Accountability Performance Tracking (CAPeT)
- Initiate procurement of Malaria commodities across various funders, track the shipments and receive them into the various warehouses
- Receive the various monthly LMIS data
- Conduct a rapid assessment of episodes of stock outs of malaria commodities reported on OpenLMIS (June 2018)
- Organize 6 Malaria commodity task force meetings in 2017/18
- Trained health workers on Transparency and Accountability of Malaria Commodities

2.2.2 PSM Challenges

- Reporting rate
- Adherence to PSM work plan and routine review of work plan
- False episodes of stock outs of malaria commodities (87%)
- Transparency and Accountability of Malaria Commodities
- None use of ASAQs as a second line treatment
- No coordination in procurement of malaria commodities
- Still procuring field stain A&B instead of Giemsa

2.3 Integrated Vector Control:

2.3.1 Distribution of LLINs

2.3.1.1 Achievements

The programme continues to routinely distribute Long Lasting Insecticide Treated Nets targeting pregnant women and the new born babies in line with the Insecticide Treated Mosquito Nets (ITN) guidelines. These LLINs are distributed through health facilities and are for free. During the reporting period, the program managed to:

- Procure 1,200,000 LLINs for routine distribution
- Distribute 994,136 out of 1,200,000 LLINs
- Place an order for procurement of 10,958,223 LLINs for 2018 mass LLINs distribution campaign
- Develop an Implementation strategy for 2018 mass LLIN distribution campaign
- Develop a road map for 2018 mass LLIN distribution campaign
- Conduct macro and micro planning for 2018 mass LLIN distribution campaign
- Conduct orientation of Door to Door Household registration
- Conduct supportive supervision.

2.3.1.2 Challenges

- Misuse of LLINs
- Low LLIN Universal Coverage in spite of LLIN mass campaign in 2016
- Low ITN utilization

2.3.2 Indoor Residual Spraying (IRS)

2.3.2.1 Achievements

In 2017/18, the NMCP only managed to:

- Revise IRS implementation guidelines (to be finalized)
- Conduct two quarterly Vector Control technical meetings
- Conduct preparatory activities for reintroduction of IRS in Nkhotakota district

2.3.2.2 Challenges

- The program was unable to conduct Sprayings due to lack of funds

2.4 Malaria in Pregnancy

2.4.1 Achievements

During the implementing year, the program has managed to:

- Implement community IPTp pilot
- Conduct supportive supervision and mentorship

2.4.2 Challenges

- Low coverage of IPTp 2 and 3
- DOT equipment
- Low ITN utilization

2.5 Social Behaviour Change and Communication and Advocacy

2.5.1 Achievements

During the implementing year, NMCP together with partners managed to:

- Conduct Care Group Model Training
 - 1,480 HSAs have been trained
 - HSA trained community volunteers
 - Volunteers reach WCBA with malaria messages
- Train 341 Health Advisory Committees (HAC) on malaria issues and accountability of malaria commodities
- Train 208 HSAs on Community Voice Action (CVA)
 - A methodology that improve the relationship between government workers and the community
- Train 1,374 HSAs on Community Change Model
 - The model facilitates interpersonal dialogue on health issues
- Conduct 10 malaria awareness campaign and 24,560 people were reached
- Train 70 ONSE and MoH staff on Community Score Card
 - A community based participatory tool used in planning, monitoring performance and evaluation of social services
- Distribute 76,800 SBCC materials
- Disseminate malaria messages through mass media
- Conduct SBCC Sub-TWG meetings

- Observed World Malaria Day (April 25, 2018)

2.5.2 Challenges

- Health talks on malaria are limited
- Community engagement on malaria issues

2.6 Monitoring and Evaluation

2.6.1 Achievements

During the implementing year, the program has managed to:

- Conduct a second 100% supportive supervision and mentorship
- Conduct bi-annual malaria data quality assessment (DQA)
- Conduct district malaria data review meetings
- Conduct M&E Sub-TWG meetings
- Write 2017 Malaria Indicator Survey report
- Conduct National and Regional Dissemination Workshops of 2017 Malaria Indicator Survey report
- Train all District Malaria Coordinators and HMIS Officers on Data Management and DHIS 2 Module
- Conduct Entomological study
- Seventy four percent of malaria monthly reports are reported on time
- Develop TORs for NMCP website developer

2.6.2 Challenges

- Lack of Data Use by DHMT for District Health Direction
- Low data quality
- Timely reports

2.7 Program Management

2.7.1 Human resource capacity building Achievements

During the implementing year, the program has managed to:

- Recruit a Program Officer
- Recruit an Monitoring and Evaluation Officer
- Support 6 program officers to attend capacity building short courses
- Support 6 Lab officers for AMREF trainings
- Orient District Malaria Coordinators on their roles and responsibilities

2.7.2 Planning and Reviews Achievements

During the implementing year, the program has managed to:

- Develop the 2019 Malaria Operational Plan (in conjunction with PMI)
- Develop the Global Fund work plans
- Organize a Bi-annual review in August 2017
- Organize 2017 National Annual malaria program review meeting
- Conduct the first ever Partners coordination meeting in December 2017
- Plan for partners coordination subsequent meetings

2.7.3 Resource Mobilization Achievements

During the implementing year, the program has managed to:

- Apply for 2018-2020 Global Fund and won (76 million USD)
- Receive successful 2019 approval (20 Million USD)
- Negotiate a successful Against Malaria Foundation fund (10 million USD)

2.7.4 Cross border Initiative Achievements

During the implementing year, the program has managed to:

- Have a Cross Boarder Visit to Kyela Tanzania
- Have a Cross Boarder Visit to Zambia

2.7.5 Challenges

- No established Posts for Program officer
- Some key officers not yet in the program (Entomologist)
- Weak capacity in some thematic areas

3. Progress on key indicators

3.1 Malaria Incidence and Deaths Rates

The 2017-2022 Malaria Strategic Plan goal is to reduce malaria incidence from 386/1,000 in 2015 to 193/1,000 by 2022 and malaria deaths by at least 50% of 2015 levels by 2022. However, according to 2017 Health Management Information System report, the malaria incidence rate reduced from 386/1,000 in 2015 to 323/1,000 population in 2017 while the death rate reduced from 23/100,000 in 2015 to 19.8/100,000 in 2017. See Fig 1 below.

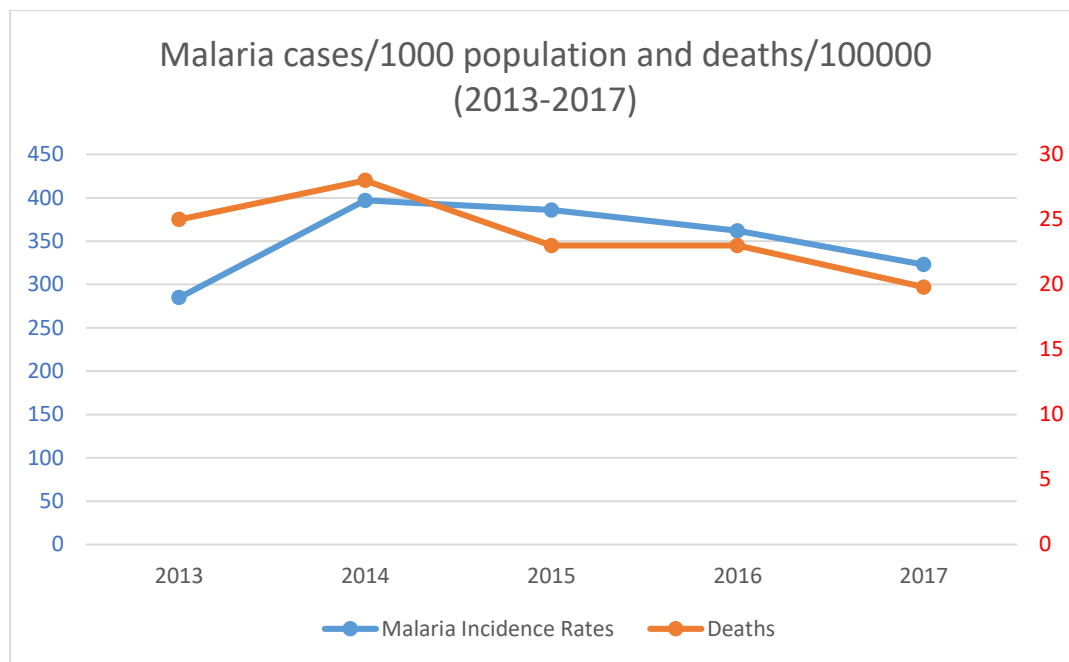


Figure 1: Malaria Incidence and Mortality Rate (2013-2017)

While the decrease in cases could be attributed to scale up of interventions, it should be noted that the number of suspected malaria cases was reduced by the scaling up of Rapid Diagnostic Tests (RDTs) to all facilities and village clinics in 2017. Despite these reductions in malaria incidence, even areas with the least burden in Malawi continue to record between 100-200 cases per 1,000 population (DHIS2 2017).

At district level, the highest MIR was reported in Nkhata Bay at 940 per 1,000 population and then Nkhotakota district at 920, followed by Likoma and Mwanza districts at 770 and 716 cases per 1,000 population respectively. The least affected district was Nsanje district, with 103 cases

per 1,000 per population. The distribution of incidence rates across Malawi in the period under review can be seen in Figure 2 below.

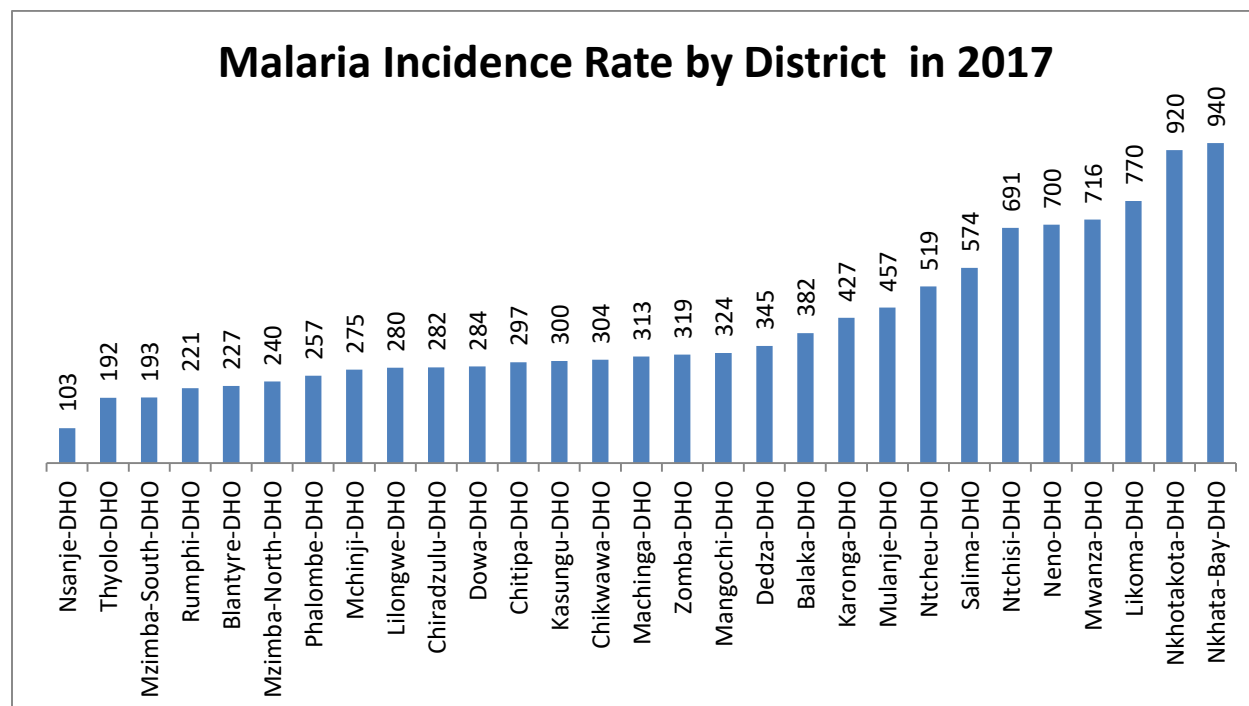


Figure 2: Malaria Incidence rates (Malaria cases per 1,000 population by District)

Malaria Indicator Surveys (MIS) in 2010, 2012, 2014 and 2017 show declining trends for anemia and parasite prevalence among children less than five years of age. A substantial decrease in the prevalence of severe anemia in this age group was noted between 2010 and 2017, from 12% (2010 MIS) in 2010 to 5% (2017 MIS) in 2017. In terms of malaria parasite prevalence, there has been an overall decrease from 43% in 2010 to 24% in 2017.

3.2 Malaria Deaths

Consistent with the decrease in the malaria incidence, the number of malaria-related deaths in Malawi has declined from 4,490 deaths in 2013 to 3613 deaths in 2017 (DHIS2 2017). See Fig 3 below.

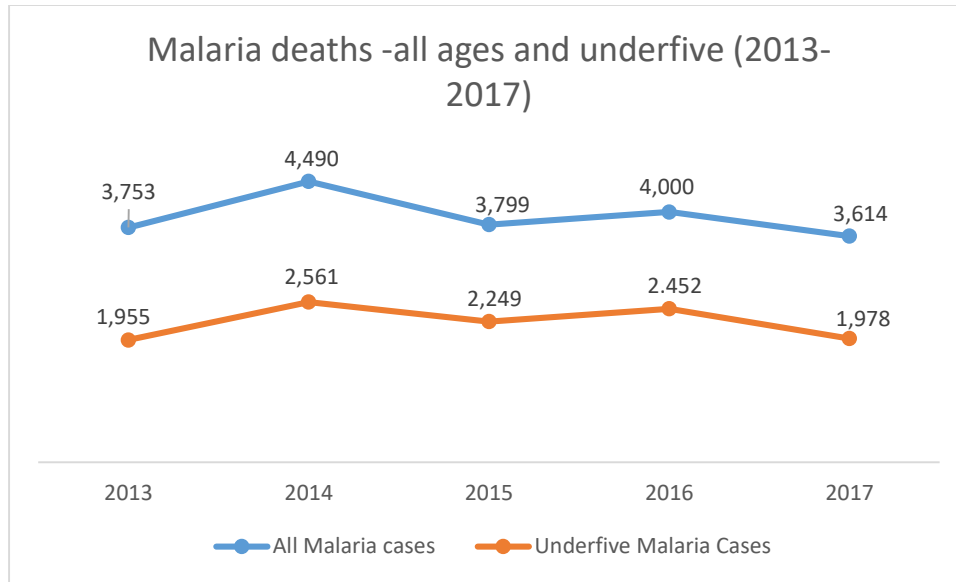


Figure 3: Malaria Deaths-All Ages

3.3 Malaria Mortality Rate by district per year

Malaria Mortality Rate is the total number of admitted patients dying of malaria per 100,000 population in the reporting period. The goal of NMCP is to have zero inpatient deaths from malaria. During the reporting period, an average of 20 inpatient malaria deaths per 100,000 population was observed at the national level, excluding central hospital figures. The districts with the highest inpatients deaths were Mchinji and Likoma with 76 and 57 deaths per 100,000 population respectively and the districts with the lowest were Mzimba North and Blantyre with 0.8 and 1.7 inpatient deaths per 100,000 population respectively. See Figure 4 below.

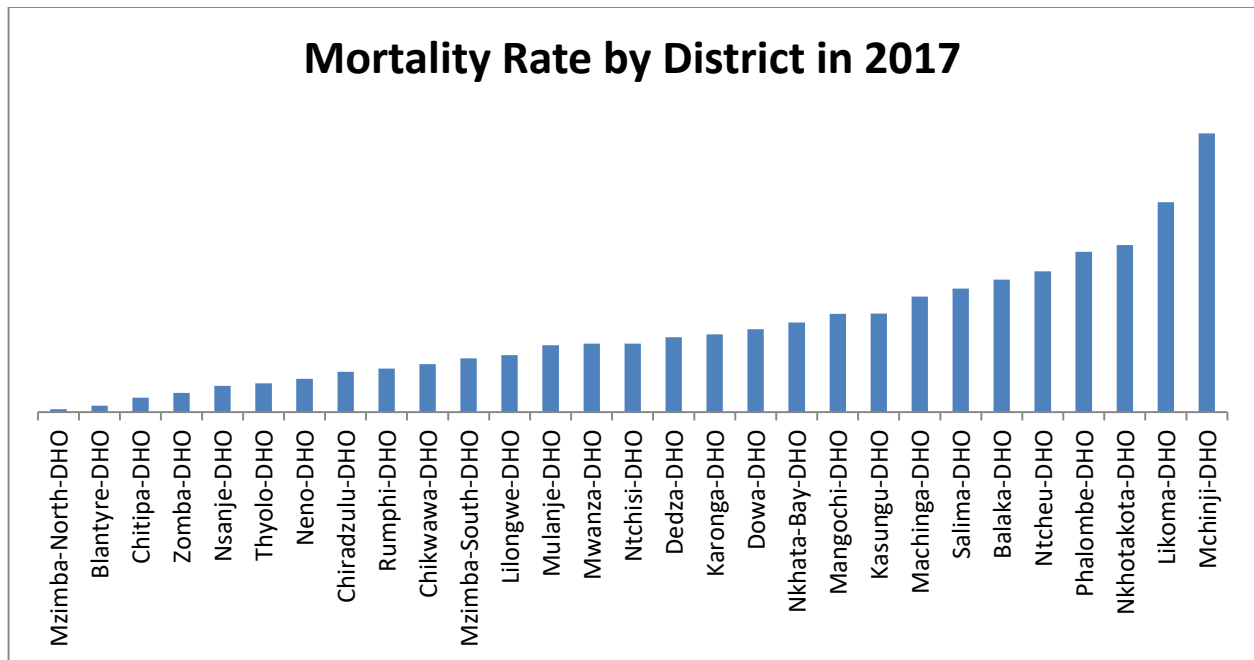


Figure 4: Distribution of Malaria Deaths by District during the reporting period

3.4 Malaria Case Fatality Rate

Malaria case fatality rate is the percentage of admitted malaria cases that died in each period. It is the target of MOH that no one should die of malaria as malaria deaths are avoidable. To avoid deaths attributable to malaria, MOH encourages patients to seek care and treatment within 24 hours from the onset of fever. It also ensures that medicines for the treatment of malaria are always available in the facilities. Figure 5 below presents Malaria Case Fatality Rates during the period under review.

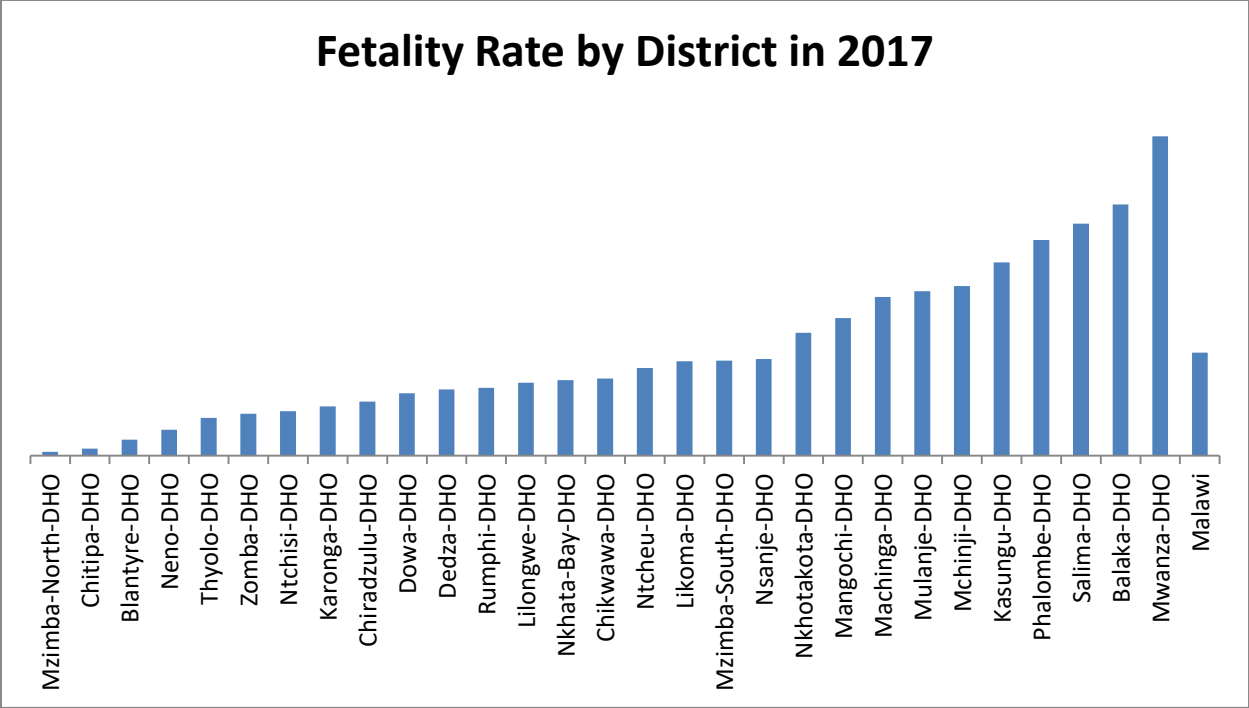


Figure 5: Malaria Case Fatality Rates across Malawi in 2017

A case fatality rate of 2.4 percent was observed at national level. See the figure 5 above. At district level, Mwanza and Balaka reported the highest number of malaria inpatient case fatality rates of 7.4 and 5.8 percent respectively, while Mzimba North reported the lowest rate of 0.1 followed by Chitipa with 0.2 percent.

3.5 Detailed Malaria Indicator Table and Data Sources

Table 1: Detailed Malaria Indicator Table and Data Sources

Indicator	Value of Indicator and Data Source 2011	Value of Indicator and Data Source 2012	Value of Indicator and Data Source 2013	Value of Indicator and Data Source 2014	Value of Indicator and Data Source 2015	Value of Indicator and Data Source 2016	Value of Indicator and Data Source 2017
Percentage of suspected malaria cases receiving a parasitological confirmation (microscopy / RDT)	5% (Program Reports)	33% (Program Reports)	74% (program Report)	83% (program Report)	111% (program Report)	87% (program Report)	98% (program Report)
Test positivity rate	<5 = 53% (Program Reports)	<5 = 47% (Program Reports)	<5 = 40% (Program Reports)	<5 = 56% (Program Reports)	<5 = 52.8% (Program Reports)	<5 = 76% (Program Reports)	<5 = 57% (Program Reports)
	≥5 = 27% (Program Reports)	≥5 = 46% (Program Reports)	≥5 = 41% (Program Reports)	≥5 = 51% (Program Reports)	≥5 = 50.1% (Program Reports)	≥5 = 54% (Program Reports)	≥5 = 52% (Program Reports)
Malaria cases per 1,000 population (clinical and confirmed)	391/1000 population (HMIS)	332/1000 population (HMIS)	230/1000 population (HMIS)	397/1000 population (HMIS)	386/1000 population (HMIS)	353/1000 population (HMIS)	323/1000 population (HMIS)

Percentage of deaths attributed to malaria	22.2% (HMIS)	15.8% (HMIS)	21.8% (HMIS)	23.8% (HMIS)	27.0% (HMIS)	28.0% (HMIS)	28% (HMIS)
Proportion of population in IRS target areas covered with IRS in the last 12 months	85% (program report)	86% (program report)	86% (program report)	0%	83% (program report)	0%	0%
Proportion of household residents who slept under an insecticide-treated net the previous night		41% (2012 MIS)	41% (2012 MIS)	53% (2014 MIS)	24.5% (2015 DHS)	24.5% (2015 DHS)	55% (2017 MIS)
Proportion of pregnant women who slept under an insecticide-treated net the previous night	49% (2010 MIS)	51% (2012 MIS)	51% (2012 MIS)	62% (2014 MIS)	46.7% (2015 DHS)	46.7% (2015 DHS)	63% (2017 MIS)
Proportion of children under five who slept under an insecticide-treated net the previous night	55% (2010 MIS)	56% (2012 MIS)	56% (2012 MIS)	67% (2014 MIS)	44.7% (2015 DHS)	44.7% (2015 DHS)	68% (2017 MIS)
Percentage of pregnant women who received 2 or more doses of IPTp	60% (2010 MIS)	54% (2012 MIS)	54% (2012 MIS)	64% (2014 MIS)			76% (2017 MIS)

					63.4% (2015 DHS)	63.4% (2015 DHS)	
Percentage of pregnant women who received 3 or more doses of IPTp	-	-	-	12% (2014 MIS)	29.9% (2015 DHS)	29.9% (2015 DHS)	41% (2017 MIS)