MINISTRY OF HEALTH
NATIONAL MALARIA ELIMINATION CENTRE

Introducing a National Electronic Severe Malaria and Death Audit Form in Zambia

Malaria Death and Inpatient File Audit (MDIFA)

August 2024

Dr. Stephen Bwalya

Background and Situation analysis

- Malaria is a leading cause of death in Zambia mostly affecting Under-fives
  - Among the 20 countries in the world with the highest malaria incidence and mortality
  - Contributes 1.5% of the global malaria cases and 1.4% of the death burden
- Progress against malaria cases and deaths has stalled nationally, regionally and globally

- Limited reviews for malaria deaths

- Lack of administrative data on malaria complications to guide decision making
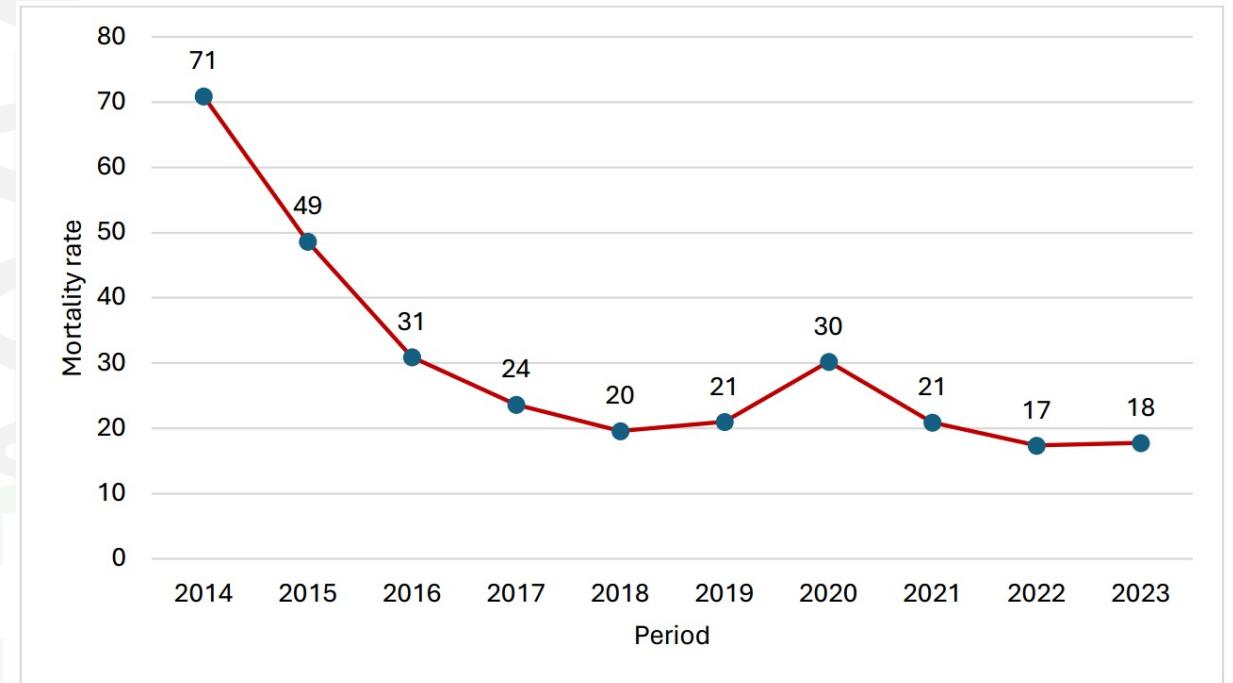
Figure 4: Under 5 Malaria Mortality Rate (deaths per 100,000 population), 2014-2023, Zambia | Source: HMIS, updated Apr 2024

Goal of malaria death and Inpatient audit review

- To end preventable malaria deaths by continuous quality improvement of severe malaria case management

- To develop a platform that routinely provides data on severe malaria cases, complications and deaths which will inform the national strategy for improving outcomes for severe malaria.

- To identify and analyze the gaps in care for severe malaria patients and malaria deaths which will inform corrective action and reduce preventable deaths

Objectives

1. To improve malaria case management at all levels of care in an effort to lower the incidence and mortality rate of malaria

2. To identify factors (modifiable and non-modifiable) related to inpatient severe malaria case management and malaria deaths

3. To develop smart action points from the gaps identified from severe malaria/death reviews and use the finding to improve the quality of care thereby reducing severe malaria sequalae and preventable deaths at the facility level

4. To raise awareness among key stake holders about modifiable factors and provide accountability for results among decision makers at District, Provincial and National

5. To institutionalize real time severe malaria file/death audit

What is MDIFA electronic tool?

- The malaria death and inpatient file audit form is an online tool developed by the National Malaria Elimination Program (NMEP) used by healthcare workers to review malaria deaths and severe malaria case files.

- Severe malaria mentorship teams have been orienting staff in the health facilities on using the tool and selecting focal point persons to facilitate the review process.

- As part of the pilot process, over 30 hospitals have been oriented in the process since March 2024 and over 60 malaria deaths and severe patient files have been entered on the platform.

MDIFA Review process

- The reviews will be integrated into the existing mortality review teams in the hospitals

- It will be based on the existing principles of file/death review

- A digital platform will be used through a smartphone application - HNQIS

- The data will be uploaded onto the DHIS2 platform

- All the data will be collected into a central repository to guide decision making at the local and national levels

- The data in the DHIS2 will be correlated with the malaria deaths in HMIS to improve data quality for malaria deaths

Key themes of the MDIFA review form

1. Timeliness
   - Patient seeking care, Triage, Timely Review
2. Diagnostic and treatment readiness
   - RDT, Microscopy
3. Primary care giver level and continuity of care
   - Nurse, CO, MO, Lab, ETH
4. Quality of care /Management
5. Readiness of the facility to manage malaria complications
6. Co-morbidity and death certification
7. Prognosis factors

Frequency of conducting the MDIFA Reviews

The reviews must be conducted at the following frequency:
- Within 72 hours of **EVERY** malaria death

- At least **ONE** severe malaria in-patient case per month in high burden areas (especially near miss)

- Quarterly review meetings to analyze the malaria deaths and severe cases data

Documents required to perform the audit

Main documents	Nursing documents	Pharmacy	Laboratory	M&E, Administration

▪ Referral form
▪ Patient's file
▪ Investigation request forms (Radiology, Lab)
▪ Lab/Radiology Results
▪ Medical Cause of Death Book
	▪ Triaging notes
	▪ Fit charts
	▪ Nursing care plans
	▪ TPR charts (vitals} including BP Readings, Oxygen Saturation, Blood sugar
	▪ Fluids charts
	▪ Drugs charts
		▪ Stock control cards
		   • Antimalarial
		   • Glucose Sticks
		   • Antibiotics
		   • IV fluids etc.
			▪ Malaria diagnostics (RDTs and Microscopes)
			▪ Biochemistry reagents, hematological investigation
			▪ Stock for blood
			▪ Inventory for functional diagnostics machines
				▪ Data records (HIA reports, HMIS report, IPD register)
				▪ Oxygen supply records
				▪ Patient transportation records
				▪ Training database/Book

MDIFA review team composition

Similar to Mortality review committee

- Clinical Care Specialist

- Specialist / Head of departments

- Laboratory Scientist

- Nurses

- Pharmacist

- M&E Lead

- Data entry clarks/Records

- Administrative staff

Next Steps and way forward

1. Consolidate the feedback from the pilot phase of implementing the MDIFA review form

2. Conclude developing the data analysis and visualisation plan

3. Consolidate the national MDIFA review protocol

4. Implement the national MDIFA review as national policy

Thank you