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ABSTRACT

***Objective*: To assess the capacity of health facilities in Kenya to implement the test-and-treat policy, adherence to the guidelines in outpatient departments, and health facility factors associated with adherence to the guidelines.**
***Design*: Retrospective review of health facility data from a routine cross-sectional survey.**
***Setting*: Public and faith-based facilities in Kenya, 2022.**
***Participants*: Suspected malaria cases visiting outpatient departments in health facilities.**
***Intervention*: Implementation of the test-and-treat strategy for malaria case management.**
***Main outcome measures*: Adherence to the policy was a composite indicator defined as confirmed malaria cases receiving Artemether-Lumefantrine (AL), or negative-testing patients not receiving antimalarials, or untested patients not receiving antimalarials.**
***Results*: Malaria diagnostic services were offered in 95% of the facilities, while AL availability was 86%. Hospitals contributed 69% of the 1068 outpatient consultations. Adherence to guidelines was observed in 60.4% of the cases. The odds of adherence were higher in public health facilities (OR 3.1, 95%CI 1.57-6.15) and facilities with malaria treatment posters (OR 2.8, 95%CI 2.00-3.78).**

Factors independently associated with guideline adherence were public health facilities, availability of information, education, and communication (IEC) materials (OR 1.8, 95%CI 1.30-2.59), stockout of malaria Rapid Diagnostic Tests (mRDTs) (OR 0.3, 95%CI 0.22-0.39), and availability of pediatric AL packs (AL 6s) (OR 2.3, 95%CI 1.71-3.20).

***Conclusion*: Most facilities could test and treat malaria cases. However, adherence to guidelines was relatively low and mainly observed in public facilities and those with malaria IEC materials and commodities. The National Malaria Control Program (NMCP) should strengthen commodity security and IEC material dissemination.**

BACKGROUND

Malaria is caused by *Plasmodium* parasites and transmitted through infected female Anopheles mosquitoes. Although it is preventable and curable, malaria is life-threatening. There were nearly a quarter billion cases and over 619,000 deaths of malaria globally in 2021 (1). With 234 million cases and 593,000 malaria deaths in 2021, Africa bears the brunt of the disease (1). Kenya, one of the fifteen high-burden countries in Sub-Saharan Africa, had over 4.2 million cases in 2021 (2). Approximately 43% of Kenyans seek treatment for fever in public health facilities (1), around 18% of outpatient consultations, and 20% of all health facility admissions (3–5). The prevalence among children aged six months to 14 years was 6% in 2020 (6).

The Ministry of Health, through the National Malaria Control Program (NMCP), developed the Kenya Malaria Strategy (KMS) for the period between 2019 and 2023. The second overall objective of the KMS is to manage 100 percent of suspected malaria cases according to the national malaria treatment guidelines by 2023 (3). This aligns with the WHO test-treat-track policy introduced in 2012 to ensure universal access to diagnosis and treatment services and strengthen the surveillance system (7).

Lifesaving malaria case management, effective disease surveillance, and programmatic training for health workers are the critical components of malaria control for Kenya's Ministry of Health's NMCP (3). These components of malaria control are directly relevant for the two 2019-2023 objectives of the KMS - firstly, to strengthen malaria surveillance and use of the information for decision-making to improve program performance, and secondly, to ensure full implementation of the malaria case-management guidelines (3,8).

The 2022 malaria health facilities assessment was undertaken to establish the latest performance levels of the country's systems readiness and guidelines compliance. It was a cross-sectional survey targeting 172 health facilities from across the country. In this study, we reviewed the survey data to assess the performance of the test-and-treat policy for uncomplicated malaria in Kenyan health facilities in 2022. Specifically, we assessed the capacity to implement the test-and-treat policy, adherence to malaria case management guidelines in suspected outpatient malaria cases, and health facility factors associated with adherence.

METHODS

Study Design

The study was a retrospective review of data collected from a routine cross-sectional national health facility survey in Kenya.

General Study Setting

Kenya is a malaria-endemic country in East Africa. As of 2020, the country had a population of approximately 49 million, with a male/female population ratio of 1:1.02 (9). It has about 12,416 health facilities, of which

almost 7% are hospitals, 17% are health centers, and 76% are dispensaries (10).

Specific context

Malaria is among the country's top 10 causes of mortality (11). Approximately 70% of the population is at risk for malaria, including 13 million in endemic areas and another 19 million in highland epidemic-prone and seasonal transmission areas. A temperature suitability index (TSI) for malaria transmission shows that Lake Victoria and coastal regions have ambient temperatures suitable for malaria transmission and have the necessary amounts and seasonality of rainfall to sustain lengthy transmission periods (3).

The national treatment guidelines require that all suspected malaria cases be tested for malaria using either a rapid diagnostic test (mRDT) or microscopy, and only those that test positive for malaria parasites get treated using Artemether-Lumefantrine (AL) (12). These activities are tracked through records in the health facility registers and reports (13). To implement this strategy fully, health facilities require specific resources, including capacity-built human resources, commodities, job aids, and other tools (14–19).

The NMCP conducts routine assessments in health facilities to assess health facility and health worker readiness for implementation of recommended management for uncomplicated and severe malaria and to assess health workers' adherence to national malaria case management guidelines (test-treat-track policy) for patients presenting with suspected malaria (20).

The health facility 2022 survey

The sample size of health facilities and patients included in each survey was calculated to detect a 15 percentage-point difference in health workers' compliance with the composite "test and treat" indicator between the current and previous surveys. To address the primary objective of health workers' compliance measurement and homogeneity of practices within facilities, the sample was adjusted for the clustering effect at the health facility level and the likelihood of practices at facilities without case-management commodities. As such, 172 health facilities were selected, including 94 randomly sampled sub-county hospitals (two per county) and 78 dispensaries and health centers. All outpatients seen during regular working hours on the survey day were included.

A proportionate stratified random sample was drawn from all public health facilities to ensure national representativeness, considering the facility's level, ownership, and administrative boundaries (counties). An updated list of all public health facilities was obtained from the Ministry of Health (MoH). It included all facilities owned by the MoH, Faith-Based Organizations (FBOs), Non-Governmental Organizations (NGOs), and the local communities. The exclusion criteria were level six hospitals (because they serve as referral facilities), mobile clinics (due to logistical challenges of tracing and disrupting the caravan), and highly restricted government facilities providing services to particular patient groups (e.g., military or prisoners) due to security reasons.

Two data collection methods were applied during the study facility's assessment day. First, all patients' cards/records for patients seen at the outpatient departments underwent rapid screening after the clinician had treated the patient. After the screening, all non-referred and non-pregnant patients with fever or a history of fever presenting for an initial visit and weighing ≥5kg were reviewed, during which information was collected about the main patients' characteristics, diagnostics requested, results reported, and medications prescribed. Second, each facility was assessed to determine the assessment day and 3-month retrospective availability of medicines, RDTs, malaria microscopy, support tools such as essential equipment and job aids, and Long-Lasting Insecticide-treated Nets (LLINs) distributed to children under one and pregnant women. The data was captured

using an Open Data Kit (ODK) tool and stored on the server.

Study Population

The study population was suspected malaria cases visiting outpatient departments and health facilities offering outpatient malaria case management services.

Sample size

To assess the capacity to implement the test-treat-track policy, all 172 assessed health facilities were included, including 94 level 4 facilities (sub-county hospitals, two per county) and 78 level 2 and 3 facilities (dispensaries and health centers).

To assess the case management practices for uncomplicated malaria, all records from each facility assessed were included.

Data Variables

To assess the capacity to implement the test-treat-track policy (data collected using the health facility assessment form), the variables collected included the availability of information, education, and communication (IEC) materials, availability of malaria diagnostics, availability of antimalarial medicines, availability, and use of health management information system (HMIS) tools.

To assess the adherence to malaria case management guidelines in suspected outpatient malaria cases (data collected using the uncomplicated malaria case management form), the variables collected included the patient's biodata (age, weight, temperature), laboratory test (requested, done, result), diagnosis and treatment (correct diagnosis, correct treatment). Data for health facility capacity and case management practices for uncomplicated malaria were abstracted using a Microsoft Excel spreadsheet from the Open Data Kit (ODK) database.

Data management and statistical analysis

The data collected in Excel spreadsheets were cleaned, and appropriate coding was done. The analysis was performed in STATA, version 15 (StataCorp, USA). The analysis of indicators was undertaken at the health facility and patient levels. Descriptive statistics formed the basis of analysis through frequencies, means, and standard deviations (for normally distributed data) or medians and interquartile ranges (for skewed data). A bivariate analysis was conducted to assess factors associated with adherence to the guidelines. Further, variables with p values less than 0.2 were subjected to multivariable logistic regression analysis. At this level, the variables with p values less than 0.05 were considered independently associated with the outcome variable.

Ethics Considerations

Ethical clearance was obtained from the Maseno University Scientific and Ethics Review Committee (approval number MUSERC/01234/23). Permission to use the assessment data sought from the National Malaria Control Program (NMCP). Personal identifying information was omitted from the data collection tools to ensure patient confidentiality.

RESULTS

Approximately 95% of the assessed health facilities had the capacity to provide a parasitological malaria diagnosis (microscopy or RDTs). Functional malaria microscopy was provided at 75.1%. Non-expired RDTs were available at 53.2% of facilities, while expired RDTs were found at 2.3%. At least one AL pack was stocked by 85.6% of facilities, while 38.2% had all AL packs in stock. AL 24 was the blister pack most commonly found at facilities (75.7%). The expired AL was stocked at only 11.0% of facilities (Table 1).

Table 1

Health facility capacity for test-and-treat policy for malaria, by level of care, in Kenya, 2022

Health facility characteristics	**Dispensary N=51**	**HC N=31**	**Hospital N=91**	**All HFs N=173**
	n (%)	**n (%)**	**n (%)**	**n (%)**
Availability of malaria diagnostic services				
Any malaria diagnostics	42 (82.4)	31 (100)	91 (100)	164 (94.8)
Functional malaria microscopy	15 (29.4)	26 (83.9)	89 (97.8)	130 (75.1)
Non-expired mRDTs in stock	33 (64.7)	18 (58.1)	41 (45.1)	92 (53.2)
Availability of antimalarials on assessment day				
Any injectable anti-malarial drug in stock	24 (47.1)	14 (45.2)	69 (75.8)	107 (61.9)
Artesunate injections	23 (45.1)	12 (38.7)	68 (74.7)	103 (59.5)
Artemether injections	3 (5.9)	3 (9.7)	5 (5.5)	11 (6.4)
Quinine injections	1 (2.0)	0	5 (5.5)	6 (3.5)
Any al tablet pack in stock	41 (80.4)	26 (83.9)	81 (89.0)	148 (85.6)
All AL tablet packs in stock	21 (41.2)	9 (29.0)	36 (39.6)	66 (38.2)
AL 6 packs tablets in stock	29 (56.9)	19 (61.3)	53 (58.2)	101 (58.4)
AL 12 packs tablets in stock	26 (51.0)	16 (51.6)	56 (61.5)	98 (56.7)
AL 18 packs tablets in stock	24 (47.1)	14 (45.2)	53 (58.2)	91 (52.6)
AL 24 packs tablets in stock	37 (72.6)	22 (71.0)	72 (79.1)	131 (75.7)
DHAP tablets in stock	2 (3.9)	0	2 (2.2)	4 (2.3)
Quinine tablets in stock	1 (2.0)	0	4 (4.4)	5 (2.9)
Retrospective stock-outs of antimalarials				
As stock-out experienced in past 3 months	22 (43.1)	12 (38.7)	23 (25.3)	57 (33.0)
Total AL stock-out experienced in 3 months	12 (23.5)	4 (12.9)	9 (9.9)	25 (14.5)

HC = Health Centre; HFs = Health Facilities; mRDTs = malaria Rapid Diagnostic Tests; AL = Artemether-Lumefantrine; DHAP = Dihydroartemisinin-Piperaquine

Of the 130 laboratories assessed, thick smear and thin smear were routinely prepared by 93.1% and 71.5%, respectively. About 56% of laboratory health workers received in-service training on malaria microscopy three years before the assessment. The proportion participating in malaria external quality assurance (EQA) schemes was 40.0% (Table 2).

A third of the health facilities had AL dosing posters. Malaria outpatient algorithm for children and adults was found at 28.9% of facilities. The availability of all job aids was higher at hospitals compared to lower-level health facilities (Table 3).

Table 2

Characteristics of malaria microscopy, by level of care, in Kenya, 2022

	Dispensary N=15	**HC N=26**	**Hospital N=89**	**All HFs N=130**
	n (%)	**n (%)**	**n (%)**	**n (%)**
Smear preparation and staining				
Thick smear preparation	14 (93.3)	25 (96.1)	82 (92.1)	121 (93.1)
Thin smear preparation	11 (73.3)	18 (69.2)	64 (71.9)	93 (71.5)
Giemsa staining	13 (86.7)	25 (96.2)	87 (97.8)	125 (96.2)
Availability of SOPs for malaria parasitology				
SOP 1: Blood smear collection and preparation	12 (80.0)	19 (73.1)	77 (86.5)	108 (83.1)
SOP 2: Preparation of buffered water	8 (53.3)	11 (42.3)	61 (68.5	80 (61.5)
SOP 3: Preparation of Giemsa stock solution	11 (73.3)	17 (65.4)	73 (82.0)	101 (77.7)
SOP 4: Staining of thick and thin smear using	11 (73.3)	19 (73.1)	74 (83.2)	104 (80.0)
SOP 5: Reading and reporting malaria	12 (80.0)	20 (76.9)	77 (86.5)	109 (83.9)
SOP 6: Cleaning and storage of slides	11 (73.3)	15 (57.7)	62 (69.7)	88 (67.7)
SOP 7: Use care of microscope	12 (80.0)	18 (69.2)	73 (82.0)	103 (79.2)
SOP 8: Rapid diagnostic tests	7 (46.7)	12 (46.2)	49 (55.1)	68 (52.3)
All 8 SOPs available	5 (33.3)	6 (23.1)	34 (38.2)	45 (34.6)
2013 Guideline for parasitological diagnosis	7 (46.7)	8 (30.8)	64 (71.9)	79 (60.8)
Participate in EQA scheme	2 (13.3)	7 (26.9)	43 (48.3)	52 (40.0)
Laboratory HWs trained in the past 3 years	N=57	N=24	N=265	N=346
On malaria microscopy	8 (14.0)	11 (45.8)	174 (65.7)	193 (55.8)
On Rapid diagnostic tests	49 (86.0)	13 (54.2)	91 (34.3)	153 (44.2)

HC = Health centre; HFs = Health facilities; SOP = Standard operating procedures; EQA = External quality assurance; HWs = Health workers

Table 3

Availability of malaria-related health facility wall charts by level of care in Kenya, 2022

Wall charts displayed	**Dispensary N=51**	**HC N=31**	**Hospital N=91**	**All HFs N=174**
	n (%)	**n (%)**	**n (%)**	**n (%)**
Artesunate IV/IM administration poster	15 (29.4)	11 (35.5)	42 (46.2)	68 (39.3)
Artesunate IV/IM dosing wheel	3 (5.9)	4 (12.9)	17 (18.7)	24 (13.9)
AL dosing schedule	14 (27.5)	7 (22.6)	36 (39.6)	57 (33.0)
Malaria outpatient algorithm for children	12 (23.5)	9 (29.0)	29 (31.9)	50 (28.9)

HC = Health Centre; HF = Health Facilities; IV = Intravenous; IM = Intramuscular; AL = Artemether-Lumefantrine.

In total, 1,068 outpatient consultations for febrile patients were evaluated, of which 69% were in hospitals. Females contributed 54%, while children under five constituted 29% of the outpatients. The adherence to guidelines was at 60.4%. This comprised 62.7% of febrile patients tested for malaria, 94.2% of patients with positive tests treated with the recommended AL, and 1.2% of those not tested for malaria (Table 4).

Table 4

Health workers' adherence to guidelines - diagnostic and treatment practices for febrile patients presenting to Kenyan facilities where malaria diagnostic services were available and AL was in stock, 2022

	Dispensary N=135	**HC N=118**	**Hospital N=681***	**All HFs N=934***
	n (%)	**n (%)**	**n (%)**	**n (%)**
Malaria test requested	86 (63.7)	69 (58.5)	439 (64.5)	594 (63.6)
Malaria test performed	85 (63.0)	69 (58.5)	432 (63.4)	586 (62.7)
Treatment for test positives	N=48	N=46	N=131	N=225
AL	48 (100)	44 (95.7)	120 (91.6)	212 (94.2)
No Antimalarial	0	2 (4.4)	11 (8.4)	13 (5.8)
Treatment for test negatives	N=37	N=23	N=298	N=358
AL	1 (2.7)	0	5 (1.7)	6 (1.7)
No Antimalarial	36 (97.3)	23 (100)	293 (98.3)	352 (98.3)
Any Antimalarial	1 (2.7)	0	5 (1.7)	6 (1.7)
Treatment when test not done	N=50	N=49	N=249	N=348
AL	2 (4.0)	0	1 (0.4)	3 (0.9)
SP	0	0	1 (0.4)	1 (0.3)
No Antimalarial	48 (96.0)	49 (100)	247 (99.2)	344 (98.9)
Any Antimalarial	2 (4.0)	0	2 (0.8)	4 (1.2)
Composite performance	84 (62.2)	67 (56.8)	413 (60.7)	564 (60.4)

HC = Health Centre; HFs = Health Facilities; AL = Artemether-Lumefantrine; SP = Sulfadoxine/Pyrimethamine

On bivariate analysis, the odds of adherence to the guidelines were three-fold higher in public health facilities when compared to other facility types. Health facilities with relevant posters (IEC materials) on managing malaria were 2.8 times more likely to adhere to the guidelines. Facilities that did not have mRDTs on the survey day were less likely to adhere to the guidelines (Table 5).

Table 5

Bivariate analysis of factors associated with adherence to the malaria test-and-treat policy in Kenyan health facilities, 2022

Variable	Odds Ratio (95% Confidence interval)	p-value
Public health facility		
No	Ref	-
Yes	3.1 (1.57 – 6.15)	0.001
Availability of IEC materials		
No	Ref	-
Yes	2.8 (2.00 – 3.78)	<0.001
Availability of mRDTs		
No	Ref	
Yes	0.3 (0.26 – 0.45)	<0.001
Availability of AL		
No	Ref	
Yes	0.5 (0.39 – 0.68)	<0.001
Availability of AL24s		
No	Ref	-
Yes	1.3 (0.91 – 1.74)	0.169
Stock-out of AL		
No	Ref	-

Yes	2.2 (1.68 – 2.90)	<0.001
Stock-out of AL 24s No Yes	 Ref 1.1 (0.77 – 1.48)	 - 0.677
Availability of Thermometer No Yes	 Ref 1.6 (1.03 – 2.44)	 - 0.035

IEC = Information, Education, and Communication; mRDTs = malaria Rapid Diagnostic Tests; AL = Artemether-Lumefantrine tablets; AL24s = Artemether-Lumefantrine packs of 24 tablets each

On multivariable logistic regression analysis, public health facilities were 2.7 times more likely to adhere to the guidelines (95% CI 1.27 – 5.66), and so were health facilities with AL (adjusted odds ratio (aOR) 2.3; 95% CI 1.71 – 3.20), and IEC materials (aOR 1.8; 95% CI 1.30 – 2.59) (Table 6).

Table 6

Multivariable logistic regression analysis of factors associated with adherence to malaria test-and-treat guidelines in Kenyan health facilities, 2022.

Variable	Odds Ratio (95% Confidence interval)	p-value
Public health facility No Yes	 Ref 2.7 (1.27 – 5.66)	 - 0.010
Availability of IEC materials No Yes	 Ref 1.8 (1.30 – 2.59)	 - 0.001
Stock-out of mRDTs No Yes	 Ref 0.3 (0.22 – 0.39)	 <0.001
AL 6s available No Yes	 Ref 2.3 (1.71 – 3.20)	 <0.001

IEC = Information, Education, and Communication; mRDTs = malaria Rapid Diagnostic Tests; AL 6s = Artemether-Lumefantrine packs of 6 tablets each

DISCUSSION

This study aimed to assess the adherence of public, faith-based, non-governmental, and community-based health facilities in Kenya to the test-and-treat policy. Our key findings indicate that most health facilities could diagnose and treat malaria based on the availability of diagnostic and treatment supplies. However, health workers' supervision and access to treatment guidelines were sub-optimal. The overall adherence to malaria treatment guidelines was moderate. Adherence was associated with public health facilities, availability of IEC materials, availability of mRDTs, and availability of AL 6s.

We found that most health facilities could conduct a parasitological diagnosis of malaria, with a majority using malaria microscopy, the country's gold standard for malaria diagnosis (12). However, it is worth mentioning that both microscopy and RDT are acceptable for testing, and both methods are required to have a robust system for quality assurance (1). Health facilities with laboratories are expected to use microscopy as the test of choice. The Ministry of Health has implemented policies and strategies for capacity-building healthcare workers on malaria diagnosis (21,22). However, only half

of laboratory health workers received in-service training on malaria microscopy. A minority reported participating in malaria external quality assurance (EQA) schemes. A patient who tests positive for malaria is supposed to receive appropriate antimalarial treatment. This is the "treat" component of the policy. In this case, the recommended treatment for uncomplicated malaria is AL. An assessment of the health facility pharmacies revealed that most facilities stocked at least one AL pack (23–25). A similar finding was seen in a survey in private drug outlets in the malaria-endemic Western Kenya region (26). This means that most facilities could correctly treat a malaria case (24). Complete AL stock-out was not common (25).

The overall adherence to the "test and treat" case-management guidelines was moderate (60%), a far call from the second objective of the Kenya Malaria Strategy (2019-2023), which requires all suspected malaria cases to be managed according to the national guidelines by 2023. Previous surveys had similar findings (27). The observed poor testing practices and unavailability of information, education, and communication materials could drive the moderate performance. This performance indicates that the NMCP is still far from achieving the target for this objective. Concerted efforts to urgently address the reasons for the relatively poor performance as the program develops the next strategy. Addressing factors associated with adherence to the guidelines, such as the availability of IEC materials, AL6s, and mRDT kits, might be the key to strengthening the management of malaria cases in the country.

Public health facilities are more likely to adhere to the guidelines than faith-based facilities. Over the years, the Ministry of Health and the county governments have invested a lot in human resources for health, including the capacity development of healthcare workers in the public sector. On the other hand, the two levels of government have no control over managing human resources for health in faith-based facilities and hence not able to influence training and capacity building of these workforce. Nevertheless, the government supports faith-based facilities by supplying malaria commodities, reporting tools, and capacity development. Further, these facilities are also supported by religious organizations and other donors and hence resource availability are unlikely to be a challenge. These differences in the management of human resources and sources of supplies might affect the practice of malaria case management, hence accounting for the difference in adherence.

The use of visual materials such as job aids has been shown to improve health workers' adherence to malaria treatment guidelines (28). This assessment found that just a third of the facilities displayed AL dosing posters with similar numbers having malaria outpatient algorithms for children and adults displayed. Generally, there are several information, education, and communication (IEC) materials developed by the NMCP together with development partners to improve the visibility of malaria control and prevention messages to the public, including prompt health seeking, use of insecticide-treated bed nets, and prevention of malaria in pregnancy. In addition, some IEC materials support healthcare workers in their routine service delivery, such as dosing schedules for AL and procedures for preparation of injectable artesunate, among others. Therefore, to enhance the delivery of quality care and adherence to guidelines, facilities should be supported with requisite IEC materials (29), and support supervision exercises should aim to ensure these are displayed at all times, especially given that some facilities might be used as training or internship institutions.

The availability of commodities for diagnosing and treating malaria is logically expected to influence adherence to malaria guidelines (25). This study found that health facilities with mRDT and AL were more likely to adhere to the guidelines. This is in

concurrence with the findings of a national survey, which found that the availability of mRDT kits leads to increased access to testing services for malaria (24,30). AL availability improves access to correct treatment for malaria, potentially improving adherence to test-and-treat guidelines (31).

This work should be interpreted in the context of a few limitations. Firstly, we could not link the individual patient data to specific healthcare workers. Therefore, it was impossible to assess the healthcare worker factors associated with guideline adherence. However, the data allowed the analysis of health facility factors, providing insights into general systemic issues that the NMCP can address. Secondly, the survey did not include private health facilities, which manage a significant proportion of suspected malaria cases. Future surveys should include these facilities for a comprehensive picture of the performance of health facilities in this policy.

CONCLUSION AND RECOMMENDATIONS

Overall, the 2022 Kenya health facility assessment findings revealed several strengths and challenges that the NMCP can draw lessons to improve the quality of malaria case management, disease surveillance, and advocacy. While not optimal, the availability of commodities was relatively high, the coverage with support activities was relatively low, and adherence to test and treat outpatient guidelines was high except for malaria testing, leading to a performance that is way below par. The health facility factors associated with adherence to the guidelines were the availability of test-and-treat commodities, dissemination of job aids to all health facilities, and government ownership of health facilities.

To improve the performance of the test-and-treat policy in Kenyan health facilities, there is a great need for the NMCP to ensure increased availability of test-and-treat commodities, dissemination of job aids to all health facilities, and strengthening capacity-building of healthcare workers in faith-based facilities.

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