

Factors Associated with Delayed Healthcare Presentation Among Adult Patients with Febrile Illness in Migori County: A Systematic Review

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Abstract:

➤ Introduction:

Febrile sickness constitutes a common healthcare seeking cause in malaria endemic regions. Despite the continued relevance of malaria as one of the causative agents, it is not the sole source of febrile symptoms. There are several other infections which can result in febrile symptoms. In Migori County, various community and health systems related factors may play an important role in influencing the time taken by the adults in moving from the development of symptoms to health care utilization.

➤ Objective:

To identify and summarize the factors which contribute to delayed healthcare utilization by febrile adults with particular focus on studies that could be useful in Migori County and western Kenya region.

➤ Methods:

Systematic literature review was carried out using PRISMA 2020.

➤ Findings:

The results show that delay in presentation is dependent on a variety of related factors. These can include lack of perception of illness severity during early stages of the disease, self-medication and home treatment, lack of information, distance and access, financial challenges, long waiting periods, perception of quality of service, availability of medication. Findings from Western Kenya reveal that the level of delay in visits to healthcare facilities after fever onset was high and the use of pharmacies and drug shops, as well as other forms of informal health services, was common. Findings specific to Migori include the use of home remedies, self-medication, transport issues, long waiting times, financial challenges and perceptions of illness severity.

➤ Conclusion:

There are various factors that contribute to delayed healthcare visits. These need to be incorporated in interventions in Migori County.

Keywords: Healthcare-Seeking Behavior, Delayed Healthcare Presentation, Febrile Sickness.

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I. INTRODUCTION

In areas that are plagued with the problem of malaria, feverish illness remains a common cause of seeking medical attention (Ogony et al., 2026). Malaria, pneumonia, bacterial infections, viral infections, among others, can lead to fever, and for a patient to understand what he or she is going through, it will be difficult unless there is a clinical examination conducted (Muwonge et al., 2025). It is important therefore to get proper diagnosis and treatment of malaria as soon as possible, especially in areas that suffer from malaria burden (WHO, 2021).

Malaria remains a major problem in Kenya with Migori County being one of the counties that carry high malaria burden.

The national malaria strategy emphasizes the role of community participation, diagnosis, treatment, and surveillance in managing malaria (WHO, 2026).

Nevertheless, rather than being a response to symptoms, health care seeking is a decision process (Galletta et al., 2022). To begin with, individuals can decide to use the drugs that they have in their homes, buy the drugs from pharmacies or chemists, use herbs, seek help from their families or traditional and religious healers, and even observe to see if the symptoms resolve on their own (Brian et al., 2025). All these actions can delay official consultations, based on information from western Kenya (Ogolla et al., 2025). The pharmaceutical retail channel was associated with challenges in accessing healthcare, 48.9% among the individuals having waited for more than 24 hours after fever onset (Ceney et al., 2021).

In line with further findings from western Kenya, adults prefer to seek help from unofficial channels or take no action if they are suffering from fever (Madera-Garcia et al., 2023). According to the research findings, only 20.9% of people with fever in their research sought medical services from facilities; most of the individuals purchased antimalarial drugs from the pharmacy or did not treat their condition (Lopez & Brown, 2023). Treatment-seeking behavior depended on the distance to travel, financial ability, seriousness of symptoms, and knowledge of malaria symptoms (Tadesse Abebe et al., 2025).

It is also worth mentioning firsthand information gathered in Migori County (Vincent Okoth et al., 2022). Households commonly employed various types of remedies before accessing professional care, as reported in a recently conducted qualitative research (Syversen et al., 2025). Seriousness and belief about the source of the sickness affected the promptness, while delays in access were caused by distance, financial barriers, and lack of health insurance (Im et al., 2025). Nevertheless, many studies of the current literature regarding delayed treatment of fever in Africa tend to focus on malaria and young children as opposed to patients suffering from fever (Amoadu et al., 2026). The case of Migori County, where adult patients face social, occupational, and economic challenges, is a positive evidence

gap in such a situation (Coe et al., 2025). It is therefore essential to examine the patient, community, regional, economic, and health system determinants that could delay the access of patients to health care services due to fever (Coe et al., 2025).

➤ Study Objectives

• Broad Objectives

Medical attention, with a focus on data pertinent to Migori County. To compile data on the variables linked to adult patients with feverish sickness delaying seeking.

• Specific Objectives

- ✓ To determine the individual and socio-demographic variables linked to delayed healthcare presentation in persons with feverish illness.
- ✓ To investigate the economic, cultural, and behavioral aspects of delayed healthcare presentation in people with feverish illnesses.
- ✓ To evaluate factors related to the health system, geography, and services that are linked to delayed healthcare presentation in people with feverish illness.

➤ Research Questions

- What personal and socio-demographic characteristics are linked to persons with feverish illnesses delaying seeking medical attention?
- What financial, cultural, and behavioral variables cause adults with feverish illnesses to postpone seeking medical attention?
- What regional, service-related, and health-system factors cause adults with feverish sickness to delay seeking medical attention?

II. MATERIALS AND METHODS

➤ Review Design

The PRISMA 2020 guidelines provide a framework for reporting systematic reviews and meta-analyses in a transparent, comprehensive and systematic manner were adopted for this systematic review. It promotes the transparency in the process of identification, selection, assessment, and synthesis of evidence (Page et al., 2021).

➤ Review Setting and Population

Migori County in Kenya was the geographical area of interest. Studies conducted in western Kenya, in other parts of Kenya, and in sub-Saharan Africa that addressed any of the following issues related to health care seeking: delay, fever, malaria, or febrile illness, where the evidence provided was relevant for adults since very few studies were found to have been published in Migori.

Adults who had febrile illness and were eighteen years and older constituted the main population of interest. Studies with age-mixed samples were included only when the evidence was relevant for adults.

➤ Operational Definition of Delayed Presentation

In this review, the act of getting proper medical attention after 24 hours from the onset of fever or any other febrile illness is considered delayed presentation to the healthcare facilities; however, the original study used a different cut-off point. Since the definition was different in different studies, this review didn't use only one measurement for all studies but instead maintained the terminology used in each study.

➤ Search Strategy and Information Sources

There are four main topics which were considered when creating the searches for the literature review: adults, Kenya/Migori/western Kenya/sub-Saharan Africa, delay in presenting for treatment, and febrile illness/fever. Some of

the sources consulted include: PubMed/MEDLINE, Google Scholar, African Journals Online, WHO documents, materials from the Kenya Ministry of Health.

• Here are Some Examples of Search Concepts:

- ✓ ("febrile illness" OR fever OR malaria) AND ("delayed presentation" OR "treatment delay" OR "healthcare seeking")
- ✓ "health-seeking behavior" OR "treatment-seeking") AND (adult OR adults) AND (Kenya OR "western Kenya" OR Migori)
- ✓ (malaria OR fever) AND (delay OR delayed) AND (Africa OR Kenya)

Table 1 Search Strategy and Information Sources

Concept	Key terms	Purpose
Febrile illness	fever; febrile illness; malaria; acute febrile illness	Identify relevant fever and malaria evidence
Delay	delay; delayed presentation; treatment delay; late care	Identify evidence on timing of care
Healthcare seeking	health-seeking behavior; treatment-seeking; healthcare utilization	Capture care-seeking decisions
Population	adult; adults; patient; community	Focus on adult patients
Geography	Migori; western Kenya; Kenya; sub-Saharan Africa	Prioritize local and comparable evidence

➤ Eligibility Criteria

• Inclusion Criteria

- ✓ Research on adults (18 years of age and older) or mixed populations with adult-relevant results.
- ✓ Research on fever, febrile illness, malaria, or other acute infectious diseases where the timing of seeking medical attention was documented.
- ✓ Research outlining variables linked to prompt or delayed presentation to formal healthcare.
- ✓ Research carried out in Migori County, western Kenya, Kenya, East Africa, or sub-Saharan Africa when results were pertinent to the review question.
- ✓ Peer-reviewed research, systematic reviews, national surveys, WHO reports and relevant government or institutional reports with sufficient methodological information.

• Exclusion Criteria

- ✓ Research that only included children and had no results that were applicable to adults.
- ✓ Research unrelated to fever, febrile disease, or the time of seeking medical attention.
- ✓ Opinion pieces, editorials, and commentary that lack pertinent synthesized or empirical data.
- ✓ When a more comprehensive publication was published, duplicate reports of the same dataset were offered.
- ✓ Research that lacks enough data to comprehend the population, results, or primary factors under investigation.

➤ Data Extraction

A structured extraction method was used to arrange the data. Author and year, country or environment, study methodology, population, sample size, definition of fever or

febrile illness, definition of delay, care provider, reported prevalence or proportion delayed, and characteristics related to prompt versus delayed care were among the primary items. Five major domains were identified from the factors:

- Individual and sociodemographic parameters, such as household characteristics, age, sex, education, occupation, and marital status.
- Knowledge and perception factors: awareness of fever or malaria, identification of symptoms, assessment of the illness's severity, and opinions regarding its causes.
- Cultural and behavioral elements, such as self-medication, home cures, conventional or religious care, and prior medical experiences.
- Geographical and financial issues, such as household income, insurance, treatment expenses, distance, transportation, and journey time.
- Factors related to the health system, such as waiting times, the availability of medications, diagnostic services, provider attitudes, service quality, and treatment confidence.

➤ Quality and Evidence Considerations

Quality of studies was assessed with regard to the definition of the population, the outcome measures, sampling techniques, and methods of data collection and analysis. Since the studies were of different designs (qualitative studies, cross-sectional studies, reviews, and national reports), pooled estimates were deemed unsuitable. This review, therefore, focuses on the consistency of the findings and gives priority to evidence from Kenya and western Kenya.

➤ Data Synthesis and Analysis

A narrative synthesis approach was employed. Findings were categorized in comparison across various studies, based on individual, behavioral, socioeconomic, and geographical & health systems themes. The quantitative measures are represented as per their findings in the original studies and

cannot be taken as the combined prevalence for Migori County. This is crucial owing to the fact that studies had varying definitions of delayed seeking of medical help.

➤ Prisma 2020 Flow Summary

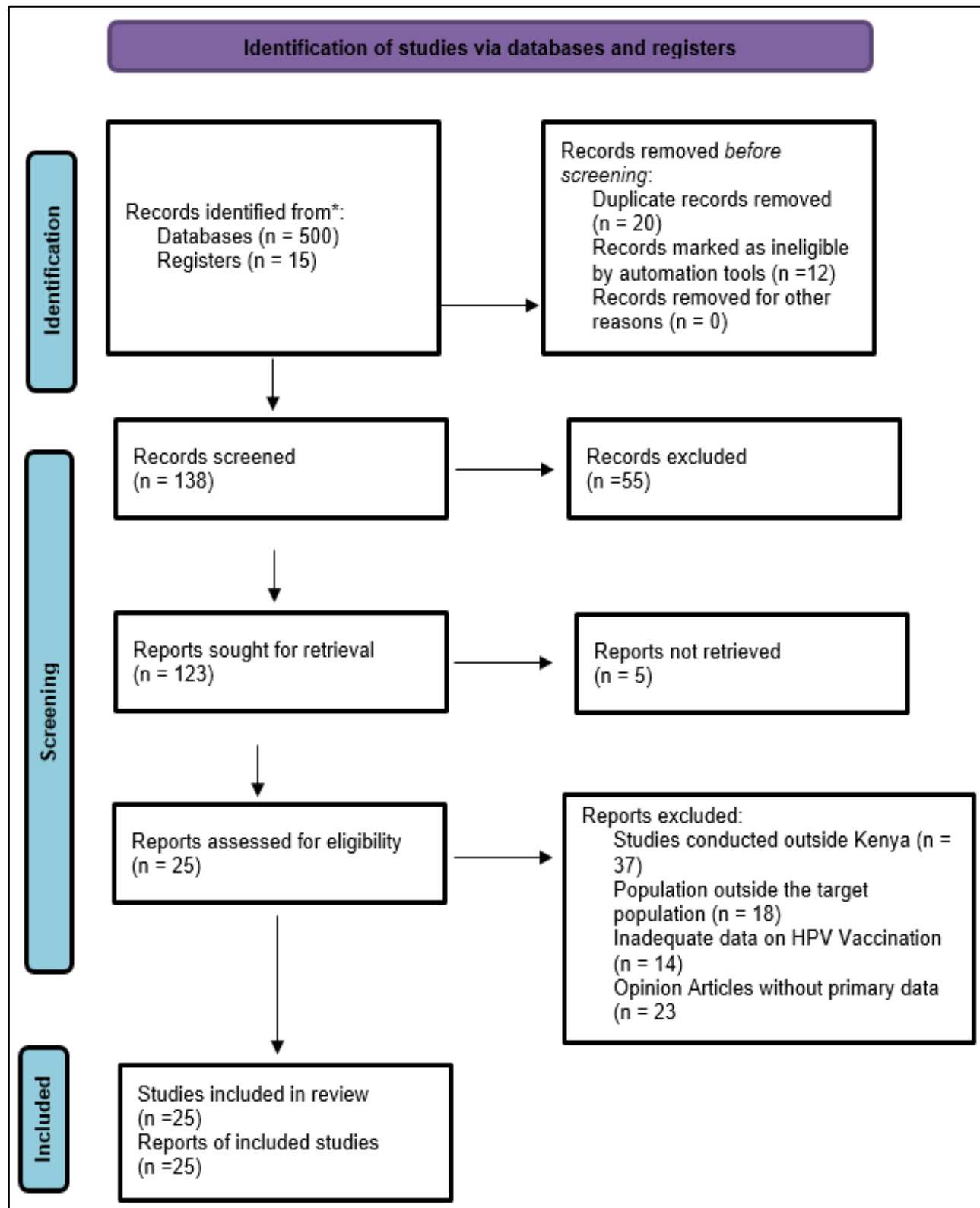


Fig 1 Prisma 2020 Flow Summary

III. RESULTS

The examined data indicates that delay in seeking treatment for fever illness is a complex problem. The delays are usually brought about by the interaction of factors such as how symptoms are understood, available choices at the community level, and availability of health services.

➤ *Evidence from Kenya and Western Kenya*

Most of the Kenyans would seek treatment for fever outside medical facilities, as stated by previous studies (Kamau et al., 2020). Malaria could be considered a relatively mild disease, judging by the report of widespread use of treatment at home in rural western Kenya (Ngutu et al., 2025a). It has been established that informal sources were often employed to treat fevers in adults and children alike (PubMed, 2023). An investigation of the issue of accessing appropriate treatment for malaria in time among Kenyans revealed a range of barriers associated with demand side, such as beliefs regarding treatment effectiveness, perception of the severity of the illness, and affordability (Hoyt et al., 2024). The distance from facilities, availability of medication, and service quality are the examples of the barriers on the supply side (Mochida et al., 2021). 48.9% of respondents in the western Kenyan study sites postponed the treatment for longer than 24 hours after developing fever, which is particularly useful information on the delays (Otambo, Olumeh, et al., 2022).

The first care seeking place can also influence the timing of the official visit for seeking help as indicated by the greater chance of delay of seeking care among the residents who accessed pharmaceutical merchants rather than health facilities (Chen, 2025). In western Kenya, education, economic status, family size, and proximity to hospital has been found to have an effect on the malaria treatment seeking behavior (Rose Maoga et al. 2026), suggesting that the trend still continues. According to a research conducted in western Kenya, only 20.9% of the adult patients with fever seek medical assistance in the medical facilities, while the rest either buy antimalaria medications from the pharmacy or do nothing (Nsengimana et al., 2023).

According to (Otambo, Onyango, et al., 2022). Another analysis conducted among feverish people in western Kenya also indicated that the most common reactions were not seeking treatment at all or buying the antimalarials from the pharmacies. The treatment-seeking behavior was affected by several factors such as distance, severity, assurance about treatment efficacy, cost, drug availability, insurance status, and malaria knowledge (Otambo, Onyango, et al., 2022).

➤ *Evidence Specifically Relevant to Migori County*

Psychosocial factors, enabling factors, and needs of the patient played an influential role in healthcare-seeking behavior according to recent Migori-based research that offers more insight into the reasons why patients delay in seeking formal therapy (Sripad et al., 2022). Long waiting times, poor quality of treatment, no means of transportation, distance, no insurance cover, financial barriers, and frequent use of home treatments before seeking formal treatment were

some of the barriers to accessing healthcare (El Hanafi & Lmejati, 2024). According to the same study, the individuals and other members of the household would opt to remain at home and visit nearby chemists as their symptoms got worse due to severity perceptions and the causation of the symptoms (WHO, 2020). This is important to the present review because of the possibility that it will take some time before the patient is able to get to the OPD (PubMed, 2026).

Education, occupation, gender, religion, and cultural beliefs affected perceptions of risk of malaria as well as treatment decisions in yet another study conducted in Migori and focused on gender perceptions and healthcare seeking behavior (Ngutu et al., 2026).

➤ *Individual and Socio-Demographic Factors*

How rapidly individuals turn to seeking medical treatment may depend on certain aspects like age, gender, education, occupation, and household environment. Occupation may affect how much time an individual is able to allocate to going to a facility and money for doing that, while education will increase the likelihood of recognizing signs and knowing what kind of help should be provided. Treatment-seeking practices were related to education and wealth in western Kenya.

However, decision-making and access may also vary based on gender. The decision about getting malaria treatment depends on interaction between gender, occupation, education, and local culture. Nevertheless, it is still important to conduct an evaluation of the problem locally because the directions of those interactions differ from context to context.

➤ *Knowledge, Perceived Severity and Symptom Recognition*

One of the most predictable causes of delayed action is the perceived seriousness of the illness. The person might choose to employ medications they already have at home or simply wait for self-recovery since they consider the fever to be mild or even common. In contrast, official health care use usually results from very serious symptoms or swift deterioration of the sickness.

Studies carried out in Western Kenya have also shown that treatment-seeking behavior can depend on the number and combination of symptoms present in the individual. If a person has fever combined with other symptoms, they may be more likely to seek medical treatment compared to a case where only a fever exists.

➤ *Self-Medication, Home Remedies and Alternative Care*

One of the commonest ways of managing such conditions before seeking formal care is self-treatment. Such approaches would include herbal medicines, over-the-counter medicines, antimalarial drugs from chemists/pharmacies, leftover medicines, and recommendations from non-professionals. While such strategies may seem realistic and cheap, they may lead to delayed diagnosis especially in cases where malaria is not the reason for symptoms.

In western Kenya, a considerable number of people suffering from fever either sought antimalarial medicines from chemists or did nothing about their condition initially. Similar findings were found in the Migori area from qualitative findings.

➤ *Financial and Geographic Barriers*

Practical issues such as cost and distance have been commonly cited. Cost of transport, tests, food, and other associated costs may pose problems with visiting a facility, even when the consultations or medicines intended are supposed to be cheap. Both cited access and cost as major determinants of health service seeking behavior in western Kenya.

Distance should not be calculated just in terms of kilometers. An adult's ability to access health services is dependent upon several factors, among them travel time, quality of roads, availability of transport means, and cost of

accessing a facility. Poor roads and transport constraints have been established as major obstacles, particularly for rural areas, in a study specific to Migori.

➤ *Health-System and Service-Related Factors*

Access to healthcare does not necessarily mean timely access. If there is an expectation of queues, drug stock-outs, repeat visits, poor communication, or low-quality diagnostic services, then it means that the patient might be forced to delay. In Migori, choosing between pharmacies and any other place was particularly due to the long waiting time and quality of services.

It was noted that some rural pharmacies do not have microscopes and will run out of test kits in no time, which explains the need for diagnostic facilities. Delay in diagnosis and treatment can force a patient to visit a chemist.

➤ *Summary of Selected Evidence*

Table 2 Summary of Selected Evidence

Study / source	Setting	Population / evidence	Main finding	Factors relevant to delay
Ruebush et al., 1995	Rural western Kenya	Febrile illness episodes	Home treatment was very common	Perceived mild illness; self-treatment; local shops
Guyatt & Snow, 2004	Kenya	Children and adults with fever	Informal sources were common	Source of care; timing; perceived illness
Chuma et al., 2009	Kenya	Review evidence	Prompt access remained inadequate	Severity perceptions; cost; distance; drug availability; service quality
Dixit et al., 2016	Western Kenya	832 households	48.9% delayed >24 hours	Retailer use; affordability; access; perceived barriers
Zhou et al., 2020	Western Kenya	Community surveys	Treatment-seeking improved but gaps remained	Education; wealth; household size; distance
Zhou et al., 2022	Western Kenya	5,838 residents; 2,205 febrile	Doing nothing and drug-shop use were common	Distance; severity; affordability; confidence; availability
Omondi et al., 2023	Rural western Kenya	Household/facility study	20.9% of adults with fever sought facility care	Access; ability to pay; severity; knowledge
Kwena et al., 2025	Migori County	16 interviews + 2 FGDs	Sequential use of home remedies, self-medication and formal care	Waiting time; transport; distance; cost; insurance; severity
Ngutu et al., 2025	Migori County	Qualitative community study	Social and gender factors shaped malaria care-seeking	Education; occupation; gender roles; beliefs
WHO, 2025	Kenya / global	National malaria profile	Migori is among high-burden counties	Need for timely case management

IV. DISCUSSION

From this perspective, late healthcare seeking by adults living with fever in Migori County is seen as a sequence of decisions as opposed to a single decision (Kwena et al., 2026). From previous results in western Kenya and the recent Migori County study, an individual might view a fever as mild, try to do some home remedies or even take medicine from pharmacies, wait until the situation changes and then seek medical care.

The importance of perception of the seriousness of the illness is even more critical in that where adults have occupations such as farming, fishing or mining, where skipping work leads to financial problems, the motivation to go to the health center is low where the illness is familiar and does not affect their daily life (Nyongesa et al., 2022).

Another significant route is self-medication; pharmacies and pharmacy stores are frequently nearby and may be thought to be quicker or less expensive than public facilities (PubMed, 2025).

Yet another important channel is self-medication, whereby pharmacies and pharmacy stores can be close by and perceived as being faster or cheaper compared to public health facilities (*PubMed*, 2025).

In contrast, Western Kenyan research has consistently shown that informal channels are often resorted to before formal ones or as substitutes; taking care of an illness without establishing what is causing the fever may delay detection of malaria and other serious infections (Agnetta et al. 2024).

While in situations where public services are expected to reduce costs directly, transportation, diagnostic costs, purchasing drugs, and lost work hours can lead to indirect costs (Debie et al., 2025). These challenges could be particularly pronounced in rural Migori, which has experienced road and transport problems (Isaacson et al., 2022).

Community-level obstacles can be strengthened by health-system issues. Patients may rationally select a local pharmacy if they anticipate lengthy wait times, medication shortages, or frequent journeys for investigations. Therefore, there may be little impact from enhancing community education without also improving the patient experience at facilities (Kodom & Netangaheni, 2024).

A significant portion of the literature on fever treatment-seeking in Africa concentrates on caregivers of children under five, which is another evidence gap highlighted by the study (Wuni et al., 2025). Adult patients have different responsibilities, resources, jobs, and decision-making patterns; consequently, adult-specific data from Migori is required, even though these studies aid in explaining broader healthcare-seeking behavior (Ngutu et al., 2025).

Community-level challenges may be compounded by health systems challenges. Individuals may rationally choose a community-based pharmacy if they know that they will face long waits, drug shortages, or constant trips for tests. Hence, there would probably not be much success in community education programs without improving the patient experience at facilities (Kodom & Netangaheni, 2024).

Much of the literature on fever treatment-seeking in Africa focuses on caregivers of under-fives, which is another limitation of evidence noted by the study (Wuni et al., 2025). Adults have different duties, resources, work environments, and decision-making processes; hence, adult-specific evidence from Migori County is necessary, despite their contributions to healthcare seeking behavior (Ngutu et al., 2025).

➤ *Strengths of the Review*

- The review brings together evidence from Migori, western Kenya, the wider Kenyan context and relevant sub-Saharan African literature.

- It considers patient, behavioral, financial, and geographic and health-system factors together rather than treating delay as a purely individual problem.
- It uses a narrative synthesis that respects differences in study design and definitions of delay.
- It avoids inventing a pooled prevalence for Migori when the available evidence does not support one.

➤ *Limitations of the Review*

- Direct adult-specific evidence from Migori County is limited.
- Studies used different definitions of delayed care, making direct comparison difficult.
- Some evidence relates specifically to malaria rather than all causes of febrile illness.
- Qualitative studies provide rich explanations but cannot be used to estimate the prevalence of delay.
- Before academic submission, the PRISMA record counts should be completed from the final database searches and a formal critical appraisal should be documented for each included study.

V. CONCLUSION

Factors related to individual, behavioral, economical, geographical and health system interact in order to result into delay in accessing healthcare by patients with fever illness in Migori County. Underestimation of the early signs and symptoms, self-medication, use of home remedies, visiting pharmacies or chemists before seeking any professional assistance, inability to pay, transportation difficulties, long distances, long waiting time, scarcity of medicines or testing facilities and concern about the quality of services are among the common reasons for delaying.

Data collected in Migori and the western part of Kenya indicate that merely encouraging the individuals to visit hospitals will not improve prompt healthcare access. In this regard, healthcare facilities should be accessible, affordable, quick and well stocked. Furthermore, information should be provided to the community on early diagnosis of febrile illness and dangers of delaying treatment. There is a need for a main study involving adults with febrile illness in Migori.

RECOMMENDATIONS

- Increase community health education about the significance of diagnosing fever and other acute symptoms as soon as possible.
- Encourage appropriate initial contact with qualified medical professionals while acknowledging the critical role pharmacies and community health advocates play in early referrals.
- Make malaria and other relevant diagnostic services more accessible, particularly in rural settings.
- Lower practical obstacles by bolstering community-level services and enhancing transportation connections.

- To cut down on recurrent visits and referrals, increase the accessibility of necessary medications and diagnostic supplies.
- Shorten wait times and enhance courteous treatment and communication in medical facilities.
- Raise awareness of health insurance and lower unnecessary out-of-pocket expenses that cause delays in medical care.
- Identify individuals who have a persistent or worsening fever and promote prompt referral by using Community Health Promoters.

• *Source of Funding*

This systematic review draft was prepared without external research funding.

• *Competing Interest*

The authors declare that they have no competing interests.

• *Authors' Contribution*

Each author agreed to be responsible for the accuracy and integrity of the work and took part in the development of the review concept, literature synthesis, manuscript preparation, and critical review.

• *Ethical Approval*

Individual participant ethics were not required in the literature synthesis since the review involves synthesis of existing material which is already published and accessible to the public without involvement of participants. Prior to collecting data, all the subsequent studies which will involve adults patients in Migori County need to have approval from relevant authorities.

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REFERENCES

- [1]. Amodu, M., Alhassan, A., & Odoom, E. (2026). Delay in malaria care-seeking for children under five in Africa: A systematic review. *Malaria Journal*, 25, 175. <https://doi.org/10.1186/s12936-026-05868-2>
- [2]. Brian, B., Goruntla, N., Bommireddy, B. R., Mopuri, B. M., Easwaran, V., Mantargi, M. J. S., Thammisetty, D. P., Bukke, S. P. N., Yadesa, T. M., & Ayogu, E. E. (2025). Knowledge, Attitude, and Practice Towards Responsible Self-Medication Among Pharmacy Students: A Web-Based Cross-Sectional Survey in Uganda. *Drug, Healthcare and Patient Safety*, 17, 7–23. <https://doi.org/10.2147/DHPS.S496924>
- [3]. Ceney, A., Tolond, S., Glowinski, A., Marks, B., Swift, S., & Palser, T. (2021). Accuracy of online symptom checkers and the potential impact on service utilisation. *PLoS ONE*, 16(7), e0254088. <https://doi.org/10.1371/journal.pone.0254088>
- [4]. Chen, A. M. (2025). Re-Evaluating Access in Healthcare: Focus on Quality of Care. *Public Health Challenges*, 4(4), e70100. <https://doi.org/10.1002/puh2.70100>
- [5]. Circular mobilities and health care seeking practices for perceived malaria illness among Nairobi residents in Kenya. (n.d.). *Social Dynamics*. Retrieved October 12, 2026, from <https://www.tandfonline.com/doi/abs/10.1080/02533952.2025.2532355>
- [6]. Coe, M. M., Shawon, R. A., Masheti, M., Oduol, C., Amam, P., Olieng'o, G. O., Timbwa, M., Kamui, M., Thitiri, J., Gimbel, S., Singa, B., & Means, A. R. (2025). "Though there are some challenges, we try our best to follow the guidelines": A qualitative study exploring determinants of providing guideline-adherent care to hospitalized children in Kenya. *Implementation Science Communications*, 6, 110. <https://doi.org/10.1186/s43058-025-00790-1>
- [7]. Debie, A., Wilson, A., Geremew, A. B., Roberts, C. T., Wassie, M. M., & Stephens, J. H. (2025). Facilitators and barriers of healthcare financing modalities for universal maternal healthcare services in East Africa: A qualitative systematic review. *BMC Health Services Research*, 25, 897. <https://doi.org/10.1186/s12913-025-13010-2>
- [8]. Determinants of caregiver's knowledge and practices regarding childhood fever management in a developing setting: A multi-centre cross-sectional assessment—PMC. (n.d.). Retrieved October 12, 2026, from <https://pmc.ncbi.nlm.nih.gov/articles/PMC10477664/>
- [9]. El Hanafi, A., & Lmejjati, M. (2024). Barriers to Accessing Health Care for Patients Living in Poverty: A Qualitative Study of Diabetic Patients in Morocco. *Middle East Journal of Rehabilitation and Health Studies*, 11(4), e145225. <https://doi.org/10.5812/mejrh-145225>
- [10]. Evans, M. V., Andréambeloson, T., Randriamihaja, M., Ihantamalala, F., Cordier, L., Cowley, G., Finnegan, K., Hanitriniaina, F., Miller, A. C., Ralantomalala, L. M., Randriamahaso, A., Razafinjato, B., Razanahanitriniaina, E., Rakotonanahary, R. J. L., Andriamiandra, I. J., Bonds, M. H., & Garchitorena, A. (2022). Geographic barriers to care persist at the community healthcare level: Evidence from rural Madagascar. *PLOS Global Public Health*, 2(12), e0001028. <https://doi.org/10.1371/journal.pgph.0001028>
- [11]. Exploring self-care choices: A qualitative study of self-medication insights among university students in Lira City, Northern Uganda—PMC. (n.d.). Retrieved October 12, 2026, from <https://pmc.ncbi.nlm.nih.gov/articles/PMC11816863/>
- [12]. Galletta, M., Piazza, M. F., Meloni, S. L., Chessa, E., Piras, I., Arnetz, J. E., & D'Aloja, E. (2022). Patient Involvement in Shared Decision-Making: Do Patients Rate Physicians and Nurses Differently? *International Journal of Environmental Research and Public Health*, 19(21), 14229. <https://doi.org/10.3390/ijerph192114229>

- [13]. Global Malaria Programme. (n.d.-a). Retrieved October 12, 2026, from <https://www.who.int/teams/global-malaria-programme/case-management/treatment>
- [14]. Global Malaria Programme. (n.d.-b). Retrieved October 12, 2026, from <https://www.who.int/teams/global-malaria-programme/case-management/treatment>
- [15]. Hoyt, J., Barsosio, H. C., Odero, I. A., Omondi, B., Achieng, F., Kariuki, S., Hill, J., & Webster, J. (2024). "If they take it without knowing, they will default...": Perceptions of targeted information transfer to promote adherence to intermittent preventive treatment with dihydroartemisinin-piperazine for the prevention of malaria in pregnancy in western Kenya. *Malaria Journal*, 23(1), 364. <https://doi.org/10.1186/s12936-024-05131-6>
- [16]. Im, H., Li, F., Stover, S., Abel, C., Farmer, J., García, C. M., Lee, J.-A., & Wyczalkowski, C. K. (2025). Overcoming Transportation Barriers for Low-Income Individuals with Chronic Conditions: Identifying Barriers and Strategies in Access to Healthcare and Food as Medicine (FAM). *Healthcare*, 13(22), 2869. <https://doi.org/10.3390/healthcare13222869>
- [17]. Isaacson, S., Adewumi, K., Smith, J. S., Novak, C., Oketch, S., & Huchko, M. J. (2022). A Qualitative Exploration of Barriers to Treatment Among HPV-Positive Women in a Cervical Cancer Screening Study in Western Kenya. *The Oncologist*, 28(1), e9–e18. <https://doi.org/10.1093/oncolo/oyac208>
- [18]. Jumhour, H. (n.d.). Delayed Diagnosis in Outpatient Care: A Systematic Review of Documentation Fragmentation as a Hidden Driver of Diagnostic Error. *Cureus*, 18(2), e102990. <https://doi.org/10.7759/cureus.102990>
- [19]. Kamau, A., Mtanje, G., Matata, C., Mwambingu, G., Mturi, N., Mohammed, S., Ong'ayo, G., Nyutu, G., Nyaguara, A., Bejon, P., & Snow, R. W. (2020). Malaria infection, disease and mortality among children and adults on the coast of Kenya. *Malaria Journal*, 19(1), 210. <https://doi.org/10.1186/s12936-020-03286-6>
- [20]. Kodom, R. V., & Netangaheni, R. T. (2024). Challenges in accessing patient-centered care and patient empowerment in selected Ghanaian hospitals. *Health SA Gesondheid*, 29, 2623. <https://doi.org/10.4102/hsag.v29i0.2623>
- [21]. Kwen, Z. A., Bukusi, E. A., Mwamba, C., Sang, N. M., Okoth, F. O., Morton, J. F., Winters, A., Pollard, D., Van Heerden, A., Humphries, H., Rech, D., Bemer, M., Cooper, S., Sharma, A., & Drain, P. K. (n.d.). Household healthcare seeking patterns for emergent ill-health in Migori, Western Kenya. *Frontiers in Public Health*, 13, 1658217. <https://doi.org/10.3389/fpubh.2025.1658217>
- [22]. Lopez, A. R., & Brown, C. A. (2023). Knowledge, attitudes and practices regarding malaria prevention and control in communities in the Eastern Region, Ghana, 2020. *PLOS ONE*, 18(8), e0290822. <https://doi.org/10.1371/journal.pone.0290822>
- [23]. Madera-Garcia, V., Coalson, J. E., Subelj, M., Bell, M. L., Hayden, M. H., Agawo, M., Munga, S., & Ernst, K. C. (2023). Self-Reported Symptoms at Last Febrile Illness as a Predictor of Treatment-Seeking in Western Kenya: A Cross-Sectional Study. *The American Journal of Tropical Medicine and Hygiene*, 108(1), 212–220. <https://doi.org/10.4269/ajtmh.21-0447>
- [24]. Mochida, K., Nonaka, D., Wamulume, J., & Kobayashi, J. (2021). Supply-Side Barriers to the Use of Public Healthcare Facilities for Childhood Illness Care in Rural Zambia: A Cross-Sectional Study Linking Data from a Healthcare Facility Census to a Household Survey. *International Journal of Environmental Research and Public Health*, 18(10), 5409. <https://doi.org/10.3390/ijerph18105409>
- [25]. Muwonge, H., Akugizibwe, R., Bbosa, G., Damani, A. M., Nakidde, B., Mugahi, R., & Byakika-Kibwika, P. (2025). Syndromic presentation by patients with malaria and respiratory symptoms in a malaria-endemic urban-and-peri-urban setting. *BMC Research Notes*, 18, 493. <https://doi.org/10.1186/s13104-025-07570-z>