

Priming preventive behavior: The influence of vernacular radio messaging on trachoma prevention in West Pokot, Kenya

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ABSTRACT

Trachoma has remained a major public health challenge in Kenya's arid and semi-arid regions despite the employment of biomedical interventions under the Surgery, Antibiotics, Face washing, Environment improvement [SAFE] strategy. This study examined the influence of priming through vernacular radio messaging on trachoma preventive behavior in West Pokot County, Kenya. It is guided by priming theory, agenda-setting theory, diffusion of innovation theory, and the Health Belief Model. The target population comprised of the residents of West Pokot. The study adopted a qualitative method using focus group discussions with 48 respondents selected through purposive sampling. Data were analyzed thematically, and findings revealed that vernacular radio enhances preventive behaviour through cognitive repetition, recall, issue salience, behavioural reinforcement, and community-level diffusion of hygiene practices. Findings further show that linguistic and cultural proximity increases message acceptance and trust. Nonetheless, inconsistent media exposure weakens priming effects. The findings present the essence of vernacular radio as a culturally available health communication platform able to shape audience perceptions, strengthen preventive standards, and ease the diffusion of hygiene practices in rural communities. This study concludes that vernacular radio is an appropriate and effective tool for trachoma prevention communication. It recommends persistent and culturally contextualized health messaging across rural communities to enhance awareness and sustained behaviour change.

Keywords: Preventive Behaviour, Priming, Trachoma, Vernacular Radio, West Pokot, Kenya

I. INTRODUCTION

Trachoma disease is a transmissible and painful bacterial eye infection that affects more than 30 percent of individuals across Kenya's dry and semi-arid regions. According to the World Health Organization [WHO](2022), the disease is spread through direct contact like sharing bedding, clothes and physical contact with infected people and also by flies that come into contact with discharge from an affected person's eyes or nose. Further, WHO explains environmental risk factors that escalate the spread of the disease. Such factors include; crowded households, inadequate hygiene, poor sanitation and limited access to clean water. Failure to urgently address and treat repeated infections may result in permanent blindness which has vital socioeconomic impacts due to decrease or loss of productivity. Based on this, the WHO has endorsed the SAFE strategy/model (Surgery, Antibiotics, Face washing, Environment improvement) which the Kenyan government through the Ministry of Health has adopted to mitigate trachoma by 2030.

Additionally, the Kenyan government has incorporated different stakeholders among them the mass media to create awareness, inform and educate citizens. This is based on the core role and power of media in constructing social reality and shaping public dialogue and responses towards adoption of health behaviour (Gichuki et al., 2024). Therefore, as Lee (2014) explains, it is important for the government and media to work together during health crisis communication. Mass media construct representations of the world through the ability to focus on issues of public interest that create critical junctures within the society. Such a dire juncture includes global health threats such as transmission of infectious diseases like coronavirus and trachoma which have been declared worldwide rampant by the World Health Organization (Vasterman & Ruigrok, 2013).

Media perspectives on rampant diseases are determined by news values such as oddity, and human interest among others. Therefore, negative stories have the ability to make news compared to positive stories. The way the media stresses on a certain disease will influence audience understanding and behavioural responses adoption. To attain this, the media must consider several aspects like framing and priming when preparing news content (Vasterman & Ruigrok, 2013). Priming in media denotes the process through which media increase the availability of particular ideas in audience memory thus influencing the principles target audience apply to analyze and assign meaning to issues. This concept is closely associated with the agenda-setting theory of mass media and its effects occur when the target audience is exposed to a certain stimulus that influences their response to a succeeding stimulus, without consciousness of the association (Marquis & Raynard, 2015; Weaver, 1991; Duru, 2018).

Cognitively, people rely on mental associations stored in memory when making decisions (Monahan, 2020). Therefore, repeated emphasis on specific aspects of trachoma prevention such as hygiene or severity may influence behavioural choices when shared through different media platforms like vernacular radio. Vernacular radio stations disseminating news in local dialects influence rural communities due to familiarity, accessibility and cultural relevance. Basic vernacular radio messages formats like spoken-word, discussions, interviews, drama, documentaries among others are mostly used in health campaigns across the nation (Marquis & Raynard, 2015, Zondervan et al., 2004). Their extensive reach and use of conversational style make them appropriate platforms for promoting preventive behaviour among the West Pokot community.

As such, to promote preventive behaviour on trachoma, vernacular radio ought to present content that attracts the target audience. This can be attained through placement of stories during a news bulletin, use of attractive headlines on a radio or television broadcast or through repetition. Such placements may create an impression than the less prominent messages. In spite of the WHO set timeframe to eradicate trachoma disease in Africa by year 2030, advancement remains unattainable (Ageed & Khan, 2024). In spite of the ongoing interventions, development toward eradicating trachoma remains limited in marginalized regions. Whereas structural interventions like improved healthcare services and clean water access and are vital, there is inadequate attention to how media effects especially priming in vernacular radio can impact preventive behaviour. As a result, this study seeks to scrutinize how priming in vernacular radio messages shapes trachoma preventive behaviour amongst communities in West Pokot, Kenya.

1.1 Research Objectives

To examine the effects of vernacular radio messaging on Trachoma preventive behaviour in West Pokot Kenya

II. LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Epidemiology and Context of Trachoma in Kenya

Trachoma is ranked as a visual neglected tropical disease (NTD) caused by *Chlamydia trachomatis*. It mostly affects people in arid and semi-arid areas in developing countries and is considered the one of the leading causes of transmittable blindness globally affecting at least 53 countries (Njogu et al., 2025). Its active infection commences during childhood and if left untreated, it advances and results in permanent blindness. Trachoma bacteria are spread through numerous ways including; direct contact with eye and nasal discharges from infected people, sharing or direct contact with fomites like washcloths or towels that transmit infectious agents, coming into contact with eye-seeking flies especially *Musca sorbens* among others. Within the 53 affected countries globally, about 325 million people live in trachoma prevalent areas while over 7 million suffer from *trichiasis*, which is the last and most painful stage of trachoma (Rono, 2013; World Health Organization, 2022).

Trachoma prevalence in Kenya has been reported in about 12 to 17 of the 47 counties positioned in arid and semi-arid areas. Centered on the high prevalence in this counties, major economic liability to the government has been observed in different surveys (Frick et al., 2003; Njogu et al. 2025). Examples of counties affected include Laikipia, Samburu, Turkana, Kajiado, Embu, Kitui, Isiolo, Marsabit, Meru, Narok, Baringo, and West Pokot which is our area of study among others. A similar disease dominance pattern has also been explained in national reviews that show the spread of the disease in arid and semi-arid lands (ASALs) (Cromwell et al., 2009).

In line with this and to mitigate the spread of trachoma by 2030, the Kenyan Government in conjunction with Ministry of Health has adopted the WHO-recommended SAFE strategy (Surgery, Antibiotics, Facial cleanliness, and Environmental improvement). Findings from studies on affected areas indicate effectiveness of the SAFE strategy. Significantly the strategy implementation has reduced the widespread of trachoma in areas where it is fully executed through adoption to hygiene promotion and mass drug administration (Emerson et al., 2006; World Health Organization, 2022; West et al., 2013). In spite of this positive realization, the transmission of trachoma still remains high in marginalized and pastoral regions such as Samburu, Kajiado, Narok, and West Pokot (Karimurio et al., 2006; Munguti,

2017). This suggests that biomedical interventions alone are insufficient without continued behavioural change practices (Chen et al., 2021).

2.1.2 Assessment of Studies on Health Communication and Trachoma Prevention

The role of mass media in behaviour change is immense. Mass media play a prominent role in shaping the target audience's interpretation and understanding of health threats. In disease epidemics, media stories influence audience risk analysis, judgement, and behavioural response aspect based on the placement/priming of stories (McCombs, 2004). Within the priming framework, recurrent exposure to particular messages increases their cognitive accessibility and influences the criteria that audiences use to evaluate related issues. Priming, which is linked to agenda-setting, suggests that media emphasis on certain issues makes particular considerations more prominent in audience decision-making (Weaver, 1991; Marquis & Raynard, 2015).

Applying this insight to the study of trachoma disease, frequent radio emphasis on facial cleanliness, environmental hygiene, and susceptibility may motivate preventive standards in target audience awareness, thus stimulating behavioural choices. Since people rely on dominant mental schemas when making decisions, constant health messaging can reinforce hygiene-related assessments. Available studies on health campaigns in Sub-Saharan Africa indicate that recurrent exposure to radio, especially vernacular radio messaging, considerably improves positive hygiene practices and disease prevention behaviours (Nyaga & Gyamfi, 2026; Sarrassat et al., 2018).

Vernacular radio platforms disseminate messages in local dialects and are extensively reachable in rural Kenya. They use conversational formats, such as dramas, talk shows, interviews, and debates. These formats improve audience engagement and understanding. Also, based on their cultural resonance, diversity and affordability, vernacular radio platforms are better placed to promote preventive health behaviour in marginalized communities where literacy levels are low (Marquis & Raynard, 2015; Zondervan et al., 2004). Indications from community-based health communication interventions show that culturally contextualized messaging improves message acceptance and trust among local audiences (Nyaga & Gyamfi, 2026).

Strategic prominence in programming schedules, message repetition, and emotionally persuasive narratives may strengthen behavioural uptake and message salience among the target audience (Monahan, 2020). Nevertheless, while media reporting of health issues is well acknowledged, inadequate empirical studies have examined how priming in vernacular radio messaging influences trachoma preventive behaviour in widespread regions such as West Pokot in Kenya. This presents a gap in connecting media effects concepts with disease-specific behavioural outcomes in localized settings.

2.1.3 Media Health Communication and Trachoma Prevention

Studies on media health communication and trachoma prevention specify that communication interventions considerably impact attitudes, understanding, and preventive practices. However, the efficiency of messages varies depending on context and delivery mechanisms. A study conducted in Kenya - Kajiado County, found that community awareness of trachoma disease was high and more than 70% of respondents had knowledge about existing eye care services and preventive measures in place. This suggested that exposure to health information mainly disseminated through community outreach and public health campaigns and plays a vital role in shaping individuals and community's attitudes and care-seeking behaviour (Ng'etich et al., 2015).

Nevertheless, as Chen et al., (2021) explains awareness alone cannot result into positive behavioural change. For example, school-based health communication involvements concentrating on face-washing messages confirmed limited immediate effect on community-level trachoma reduction. This highlighted the gap between knowledge achievement and persistent behavioural results. Thus, though mass media and institutional communication policies are effective in information distribution, there is need for fortification through environmental and practical structures. Additional empirical indication emphasizes on the significance of combined, community-based communication tactics in trachoma control. In Kenya, interventions linking mass drug administration (MDA) with increased community engagement and communication strategies considerably enhanced treatment management and reduced infection rates across sub-counties in Kajiado (Gichuki et al., 2024).

In addition, studies on conducted pastoralist communities show that literacy level and access to information are core contributing factor influencing trachoma prevalence as they are closely associated with health outcomes thus, strengthening the criticality of health communication in disease prevention and control (Chweya et al., 2023). Further, research conducted in Kenyan health communication indicate that media effectiveness is largely shaped by factors like accessibility of communication channels, audience trust, cultural relevance therefore stressing the need for context-specific messaging approaches and community active participation (Kungu, 2010). Together, these findings show that effective trachoma prevention involves a multidimensional communication method that incorporates structural interventions, interpersonal communication and mass media. Empirical evidence also indicates that trachoma has remained predominant in arid and semi-arid regions. The regions experience structural challenges such as poor hygiene,

low literacy levels including, limited access to clean water, overcrowding in homes and dispersed pastoralist populations. Such challenges enhance disease transmission and obstruct successful health communication (Karimurio et al., 2006).

Studies also show that though public health messaging and media campaigns have enhanced understanding, awareness and the importance of trachoma prevention, effective behavioural change is mainly reliant on community-based communication methods comprising of the community, community health volunteers and local leaders (Ng'etich et al., 2015; Gichuki et al., 2024). Additionally, socio-cultural influences like gender roles and pastoralist mobility considerably shape how community interpret and adopt shared health messages (Okoye, 2025). As such, to effectively communicate trachoma prevention messages in Kenya, there is need for an integrated approach combining participatory communication, mass media communication with and socially tailored interventions and application of clean water, sanitation, and hygiene (WASH) strategy.

2.2 Theoretical Review

The main theory supporting this study is Priming Theory, which describes how vernacular radio messages form emotional responses, cognitive accessibility and the acceptance and transmission of preventive behaviour against trachoma in West Pokot, Kenya. This theory is significant in understanding how continued exposure to media health messages impact how target audiences understand, evaluate, and respond to public health concerns.

2.2.1 Media Priming Theory

In media research, priming is a critical concept that refers to a cognitive process through which media stresses on specific issues hence increasing their availability in target audience memory. This in return influences succeeding decisions and behaviour. Iyengar and Kinder (1987) explain that extensive media coverage of specific issues like public health concerns stimulates connected constructs in a person's memory, thus making them more salient when constructing views or making decisions. As such, priming affects not what people think about, but how they think about issues and the principles they apply in assessment of the said issues (McCombs, 2004).

Priming functions through vital aspects like placement, repetition, and timing of media messages. This enhances the probability that certain concepts will be retrieved from audience's memory. It functions within both implicit and explicit memory systems. Explicit memory encompasses conscious remembrance of information, like recalling of health messages about trachoma prevention program on vernacular radio. In contrast, implicit memory functions subconsciously, where recurrent exposure to media messages like those endorsing facial hygiene can impact behaviour change even without conscious recollection of the original message (Tulving & Schacter, 1990). Therefore, priming is better understood as a modification in response or behaviour resulting from previous exposure to media stimuli, frequently occurring without deliberate consciousness.

A fundamental tenet of priming is the influence of repetition and accessibility. When media repeats message exposure, it intensifies the mental accessibility of particular ideas, making them more likely to guide decision and action. As described in accessibility theory, information regularly stimulated becomes easily retrievable and significant in decision-making processes (Higgins, 2012). In the perspective of this study, repeated vernacular radio messages on trachoma prevention like proper hygiene practices and environmental cleanliness can increase the probability that people adopt this behaviour in their daily schedules.

Priming theory explains how repeated media exposure increases the accessibility of specific ideas in audiences' memory, thereby shaping how individuals interpret issues and make decisions. At its core, priming operates through cognitive accessibility, where frequently presented messages become more retrievable and influential in guiding judgments (Iyengar & Kinder, 1987; Higgins, 2012). In the context of trachoma prevention, vernacular radio plays a critical role by repeatedly broadcasting messages on hygiene practices such as face washing and environmental sanitation. This continuous exposure makes such preventive measures more salient in people's minds, increasing the likelihood that individuals recall and apply them in their daily routines. Thus, vernacular radio enhances the mental availability of trachoma-related information, which is essential for influencing health behaviour in endemic communities.

Another important tenet of priming is issue salience and repetition. Media constant emphasis of certain issues makes target audiences to identify certain issues as vital and worthy of their attention (McCombs, 2004). As such, whenever vernacular radio stations repeatedly stress on trachoma as a community health concern, it automatically becomes a major concern in the community. This shapes how people assess related risks and respond to health communications. Additionally, priming also informs the criteria people apply in interpreting and making decisions. Therefore, recurrent publicity to health messages can present sanitation and hygiene as the core principles for evaluating personal and community health. Studies in health communication indicate that such priming effects can greatly affect preventive intents and behaviour (Tversky & Kahneman, 1973; Nabi, 2003). Applying this insight to this study, recurrent messaging connecting trachoma to poor sanitation settings encourages individuals and communities to adopt behaviour like seeking timely medical intervention and consistent face washing.

Further priming operates through emotional activation, Media messages arouse emotional responses like concern, motivation or fear which shape behavioural outcomes. Previous studies indicate that emotionally framed health messages impact risk awareness and behavioural obedience (Entman, 1993; Green et al., 2020). In vernacular radio communication, content emphasizing on the risk of blindness due to untreated trachoma can generate concern and fear hence encouraging target audience to embrace preventive practices. Equally, positively framed messages stressing on the benefits of community responsibility and cleanliness reinforce necessary health behaviour. Hence, priming incorporates both emotional and cognitive processes, making it effective in affecting health-related decision-making.

Finally, the influence of priming is mirrored in observable behavioural conclusions. This is because, when certain concepts are frequently triggered, they form decision-making processes and later translate into action (Bargh & Chartrand, 2000). In trachoma prevalent areas, use of vernacular radio messages can enhance the rate of adoption of preventive behaviour like active participation in mass drug administration programmes, better facial cleanliness, and environmental hygiene. Nevertheless, the efficiency of priming is moderated by dependent factors like access to clean water, cultural norms and accessibility of well-equipped health services. As such, though priming theory discusses how media affects behaviour, its success in endorsing trachoma prevention depends on the incorporation of other communication strategies with wider socio-cultural and structural interventions.

Priming is closely connected to Agenda-Setting Theory, which elucidates how media determine the salience of issues in public dialogue (McCombs & Shaw, 1972). Although agenda-setting impacts what audiences identify as significant, priming explaining how such significant issues become the principles through which audience assess situations and make conclusions. In this study, frequent media highlights on trachoma promotes its supposed prominence and primes target audiences to evaluate health risks and behaviour relative to the disease.

2.2.2 Health Belief Model (HBM)

HBM model was developed by Irwin M. Rosenstock and colleagues in the 1950s. It remains one of most widely used model in health-related behaviour explanation. This model argues that people are likely to embrace preventive health actions when they perceive a health threat as severe and believe that specific actions can reduce that threat (Nganda & Mwithia, 2023; Alamer, 2024). The concepts of the HBM include; perceived severity, perceived vulnerability, perceived barriers perceived benefits, cues to action, and self-efficacy. The concepts discuss how different people assess health risks and choose whether to engage in preventive behaviour or not. Recent studies indicate that this model has remained relevant in predicting health behaviour, especially in areas like communicable disease prevention and digital health interventions (Alamer, 2024; Koulouvari et al., 2025). Relating the insight to the study, vernacular radio messaging acts as a cue to action for the target audience. This is attained by frequent emphasis on trachoma risks and preventive practices like environmental and facial hygiene. This persistent exposure increases perceived vulnerability and severity of the disease, as well as emphasizing on the perceived benefits of preventive behaviour. Therefore, utilization of local language reduces alleged communication barriers and reinforces self-efficacy, making it easier for people in West Pokot to adopt suggested health practices (Nganda & Mwithia, 2023).

2.2.3 Diffusion of Innovation Theory

The theory was developed by Everett Rogers in 1962. It elucidates how new behaviour, practices or ideas, spread within a collective system over time. The theory suggests that the adoption of a new innovation is affected by social structures, communication processes, alleged characteristics of the innovation (Iqbal & Zahidie, 2022). The core elements of this theory include the communication channels, innovation, social system and time. Further, the theory expounds that adoption of new innovations takes place in different stages. This stages are classified as innovators- people who come up with an idea, early adopters, early majority, late majority, and laggards- the last people to adopt an idea. In addition, the rate at which an idea is adopted is influenced by key qualities like compatibility, relative advantage, compatibility, trial ability, complexity and observability (Zhang et al., 2015; Liu et al., 2023). The qualities explain how behaviors are presented, assessed, and eventually accepted within a community.

Basing our insight on current studies, the theory is still relevant in public health, especially in explaining how health behaviours like disease prevention policies and hygiene practices spread across different people (Iqbal & Zahidie, 2022). Studies show that appropriate communication channels and cultural compatibility play a significant role in increasing the rate of acceptance of health innovations (Liu et al., 2023). In relation to this study, trachoma preventive practices like facial and environmental hygiene represent the innovation and vernacular radio represents as the principal communication channel. The frequent broadcasting of messages enables creating awareness and persuasion, while interpersonal debates within families and publics support the diffusion process. The social significance of vernacular radio increases compatibility, making it easier for the community in West Pokot to accept these practices. As such, vernacular radio messaging not only impacts individual attentiveness but also promotes the spread of preventive behaviours across the community system.

2.2.4 Linking the Theories

This study is primarily anchored on Priming Theory which describes how repeated vernacular radio messages make trachoma prevention practices more influential and memorable among target audience. On the other hand, the agenda setting theory complements the theory by presenting how recurrent media reporting makes trachoma a significance issue within the community. The Health Belief Model describes how people interpret mediated messages by assessing their severity, possible risks, and benefits of adopted preventive actions, while diffusion of innovation theory explains how these new behaviours spread through social interactions. Collectively, the theories indicate that vernacular radio shapes trachoma prevention discourse by affecting individual decision-making, cognition, and community behaviour change.

2.3 Empirical Review

Trachoma is a main public health concern in arid and semi- arid areas in Kenya where environmental issues like poor sanitation, overcrowding and limited access to clean water thrive. Such circumstances expedite fast transmission of the disease (World Health Organization, 2022). Based on these, the government of Kenya through the Ministry of Health has adopted the WHO recommended SAFE plan to eradicate trachoma by 2030. To achieve this, persistent behavioural change remains critical for prevention and this emphasizes the need for the adoption of operative health communication approaches.

As such, there is a need to employ the use of mass media, particularly vernacular radio. The role of media in shaping perceptions, understanding health risks cannot be ignored, through the angle of the media priming theory, media affects the audience's cognitive levels, this occurs through repeated emphasis on particular issues which intensifies their cognitive accessibility, impacting the standards audiences use when evaluating related behaviour (Iyengar & Kinder, 1987). Relating to the context of trachoma prevention, repeated radio messages that stress on the disease seriousness, hygiene, and community obligation may produce related mental associations, thus shaping preventive decision-making.

The nexus between priming, agenda setting and framing cannot be ignored, Agenda-setting, defines issue salience (McCombs, 2004), and framing forms interpretation through emphasis on specific message angles. Through priming- placement and timing, the message gets to the target audience (Entman, 1993). Emotional responses like fear or concern, especially when messages stress vulnerability or benefits of prevention, can further strengthen behavioural meanings. Nonetheless, acceptance of preventive practices like face washing and seeking treatment is also influenced by contextual factors, including perceived vulnerability, perceived benefits, and structural constraints, as explained by the Health Belief Model.

Beyond the individual cognition, the diffusion processes form community-level behaviour change. This is understood through the works of (Rogers, 2003). In his theory- the Diffusion of Innovations, the salience of preventive attributes like compatibility, relative advantage and compatibility can influence how behaviour spreads through interpersonal networks. Vernacular radio is positioned as a key platform for reinforcing preventive norms in marginalized communities such as West Pokot. This is due to its affordability, accessibility and cultural relevance. Notwithstanding the ongoing interventions, limited empirical consideration has been given to how media priming in vernacular radio messaging impacts preventive behaviour and public diffusion in trachoma-endemic areas. Therefore, this study addresses that gap.

III. METHODOLOGY

This study adopted a qualitative research design to examine how the residents of West Pokot perceive vernacular radio messaging on Trachoma and how the messages influence behavior. Data were collected through focus group discussions and analyzed thematically. The study was guided by media priming theory which helped explain how repeated exposure to radio messages shapes perceptions and encourages behavior. A research design is the overall plan guiding how a study is conducted, including the procedures for data collection and analysis in line with the study objectives and questions. The qualitative research design was most suitable because the study focused on understanding participants' views, experiences, shared meanings and interpretations. Specifically, the study explored how listeners interpret radio messages and how these messages influence daily practices and thinking on Trachoma prevention and control. This approach allowed the participants to express their opinions freely and describe how the radio messaging affected their perceptions on Trachoma and its control. As such, making it possible to capture group discussions, community beliefs and shared understanding, which are crucial in studying media influence in a social context.

The study was conducted in West Pokot County, located in the Rift valley region of Kenya. The county borders Turkana to the North, Baringo to the East, Elgeyo Marakwet and Trans Nzoia to the south and Uganda to the west. According to the 2019 Kenya population and Housing census, West Pokot has a population of 621, 247. The target population comprised of the residents of West Pokot. The participants were selected purposively based on their ability

to provide relevant information, particularly their exposure to vernacular radio broadcasts. A total of 48 participants were involved in the study, distributed across eight FGDs, each consisting of six participants. The number of discussions was determined by the principle of data saturation, whereby the discussions were continued until no new information emerged. Participants were grouped according to age and gender to encourage open and active participation.

All the FGDs were audio recorded with the participants' informed consent and later transcribed word for word. The discussions conducted in vernacular language were transcribed in the original language and subsequently translated into English to ensure accuracy and preserve meaning. The data were then coded by identifying key ideas and grouping them into themes related to Trachoma disease, participants' response, reactions and behavioral influence. Both inductive and deductive coding were used allowing themes emerge from the data and guidance from priming theory respectively. To ensure trustworthiness, several steps were taken. Credibility was enhanced through the inclusion of direct quotations from participants. Dependability was maintained by ensuring clear and consistent research process, including detailed documentation of data collected and analysis procedures.

IV. FINDINGS & DISCUSSION

4.1 Vernacular Radio Access and Trachoma Messages

Findings from the eight FGDs conducted in Kapkres Village, Tampalal Village, Sinenden Village, Remaa Village, Marich village, Tapach Village, Kasulol village and Nyarkulian village revealed widespread and universal access to vernacular radio stations. Participants from each village consistently reported that vernacular radio remains a highly accessible and trusted source of information, channeling both general news and community-based programmes. In every village participant confirmed the presence of at least one operational vernacular radio station, indicating vernacular radio's deep penetration and its continued relevance in shaping local knowledge and behaviour. Across the FGDs, the following three stations were repeatedly and consistently identified as the most prominent and widely listened to:

- I. North Rift radio
- II. Ralai Radio
- III. Kokwo

Further, participants from seven of the eight Focus group discussions confirmed that these stations regularly broadcast Trachoma related messages in West Pokot, indicating that public health communication is part of the radio programming. Only Focus Group 8 (Nyarkulian village) noted that Trachoma messages are rarely aired. The consistent dissemination of Trachoma messages through vernacular radio demonstrates the station's critical role in promoting community awareness, reinforcing preventive behavior while supporting broader public health initiatives. The widespread reach is an indicator that vernacular radio stations are effective platforms for public health education capable of engaging diverse audiences across West Pokot.

4.2 Understanding of Media Priming

Findings from eight FGDs indicate that participants generally understand media priming as repeated exposure to media content. Thus, repeated exposure to vernacular Trachoma radio messages shape perception and response to issues. Participants emphasized that when Trachoma health issues are frequently discussed on radio, they are seen as urgent, important and salient within the community. Across the 7 out of 8 villages, respondents noted that repeated Trachoma messaging keeps the disease *in people's minds*, influencing how the audience interprets symptoms and adopts the control measures put in place by the Ministry of Health. Further Many participants explained that continuous exposure usually increases perceived severity and susceptibility hence motivating preventive behavior aimed at reducing infections and reinfections. However, Participants from FGD 8(Nyarkulian village) expressed uncertainty regarding frequency and uncertainty of vernacular radio messaging on Trachoma disease. This indicates that the lower the exposure, the weaker the priming effect, potentially reducing issue salience and behavioral reinforcement.

Therefore, vernacular radio stations are effective since they communicate in familiar language while incorporating culturally relatable examples which aligns with established daily listening routines. Participants noted that hearing discussions from trusted presenters and local voices strengthens message credibility and reinforces behavioral response. Vernacular radio was described as especially effective because it communicates in familiar language, incorporates culturally relatable examples, and aligns with established daily listening routines. Participants indicated that hearing discussions from trusted presenters and local voices strengthens message credibility and reinforces behavioral expectations.



4.3 Thematic Analysis of Media Priming

Table 1
Media Priming

Theme	Description of Understanding	Narrative statement from participants
Issue salience	Repeated radio messages make Trachoma appear serious and urgent	<i>When they keep talking about it, you know it is not a small</i>
Cognitive Recall	Frequent airing helps people remember symptoms and preventive measures	<i>You hear it many times, so you cannot forget</i>
Agenda setting influence	Radio determines what the community discusses and prioritizes	<i>If radio talks about it, people start discussing it in homes.</i>
Behavioral reinforcement	Repetition encourages hygiene and preventive behavior	<i>It reminds us to wash our face, keep the compound clean to prevent flies...</i>
Trust in the vernacular radio	Repeated messages are local language enhances acceptance	<i>We believe it more since Trachoma messages are aired in our language</i>
Limited exposure (Nyarkulian village)	Limited broadcasting weakens priming effect	<i>We rarely hear Trachoma messages on radio</i>

Based on the table above, participants perceive media priming as a subtle but powerful influence. When vernacular radio repeatedly highlights Trachoma, listeners begin to interpret control measures within the framework provided by radio messages. The disease becomes cognitively accessible, as a result individual are more likely to think about Trachoma when related issues arise. Further, participants described morning and evening health segments and repeated campaign messages contribute to shaping attitudes and reinforcing preventive behaviors. In villages where messages were broadcasted consistently, priming extended beyond individual awareness to collective engagement, with discussions occurring in different community activities. Further, in Nyarkulian Village, where participants reported broadcasting of Trachoma messages the perceived urgency and community level discourse were comparatively lower, suggesting that consistent exposure is critical to sustained priming effects.

4.4 Effects of Priming on Preventive Behaviour

Table 2
Effects of Priming

Theme	Narrative statement from participants	Observed effects
Issue salience	<i>When they keep talking about it, you know it is not a small issue</i>	Increased perception of risk and severity.
Cognitive Recall	<i>You hear it many times, so you cannot forget</i>	Improved understanding and retention of information about the disease.
Agenda setting influence	<i>If radio talks about it, people start discussing it in homes.</i>	Increased household and community conversations on transmission and control.
Behavioral reinforcement	<i>It reminds us to wash our face, keep the compound clean to prevent flies...</i>	Adoption of preventive practices.
Trust in the vernacular radio	<i>We believe it more since Trachoma messages are aired in our language</i>	Greater acceptance of control advice and health recommendations.
Limited exposure (Nyarkulian village)	<i>We rarely hear Trachoma messages on radio</i>	Weaker awareness levels and reduced reinforcement of control practices.

Based on table 2 above, the findings indicate that vernacular radio plays a crucial cognitive and behavioral role in shaping community perceptions on Trachoma in West Pokot. Participants responded reveal patterns consistent with priming theory as indicated below:

4.4.1 Issue Salience

Narrative statement: *When they keep talking about it, you know it is not a small issue*

Effect: *Increased perception of risk and severity.*

Participants indicated that repeated Trachoma Messaging elevated the perceived susceptibility and severity of the disease. This is because when vernacular radio programs consistently highlight Trachoma disease, listeners interpret it as a major health concern. The repetition of these health messages prepared West- Pokot residents to evaluate eye issues through the lenses of Trachoma susceptibility and severity.

4.4.2 Cognitive recall

Narrative statement: *You hear it many times, so you cannot forget*

Effect: *Improved understanding and retention of information about the disease.*

Participants indicated repeated exposure improved understanding of symptoms and preventive measures. This improved understanding and learning on hygiene related messages. The participants were able to remember the information on the cause of Trachoma, symptoms, prevention and consequences.

4.4.3 Agenda Setting Influence

Narrative statement: *If radio talks about it, people start discussing it in homes.*

Effect: *Increased household and community conversations on transmission and control*

Participants indicated that vernacular radio discussions triggered interpersonal communication at household levels. The issue moved from media space into communal spheres expanding awareness and collective reflections. The exposure influenced how people from West Pokot evaluated health practices and sanitation behaviors.

4.4.4 Behavioral Reinforcement

Narrative statement: *It reminds us to wash our face, keep the compound clean to prevent flies...*

Effect: *Adoption of preventive practices.*

Participants linked repeated reminders to hygiene practices such as face washing, hand washing and environmental cleanliness. Vernacular radio messaging served cognitively and behaviorally reinforcing daily preventable habits. Therefore, repeated cues really activated health-conscious behaviors when relevant.

4.4.5 Trust in Vernacular Radio

Narrative statement: *We believe it more since Trachoma messages are aired in our language*

Effect: Greater acceptance of control advice and health recommendations.

Participants indicated that language familiarity enhanced credibility and understanding the associated vernacular radio messages with cultural relevance and authenticity, strengthening message acceptance. It further shaped how the messages were interpreted since the vernacular radio transferred salient issues to the West Pokot residents.

4.4.6 Limited Exposure

Narrative statement: *We rarely hear Trachoma messages on radio*

Effect: Weaker awareness levels and reduced reinforcement of control practices.

Participants' response demonstrated that exposure was inconsistent leading to lower recall and reduced perceived urgency. This suggests that priming effects are contingent upon frequency and message consistently. Without repetition, cognitive accessibility and behavioral activation is weakened.

4.5 Discussion

The study examined how priming through vernacular radio messaging influences trachoma preventive behaviour in Kenya. Findings indicate that vernacular radio acts as an influential socio-cognitive health communication tool. It shapes risk awareness, public dialogue, and hygiene behaviour. The findings support Kenya's trachoma elimination efforts affiliated with the SAFE strategy endorsed by the World Health Organization. In line with priming theory, recurrent exposure to trachoma messages increased cognitive openness of hygiene and disease prevention deliberations. Respondents stated that repeated radio debates on environmental sanitation and facial cleanliness kept trachoma issues mentally salient, impacting how they assessed individual and public health risks.

The findings similarly support the agenda-setting and framing viewpoints. As discussed by McCombs (2004), constant media reporting increases issue salience in public perception. Also, respondents point out that vernacular radio changed trachoma from a single person's health issue into a community challenge. Additionally, emotional and culturally framed messages improved acceptance of prevention guidance. Psychologically, findings align with the Health Belief Model, indicating susceptibility, alleged disease severity and encouraged preventive practices like face washing and environmental cleanliness. Nevertheless, structural hindrances like limited healthcare access and water scarcity still affected behaviour change regardless of high awareness levels.

This study also supports diffusion of innovation theory by Everett Rogers (2003). This is because radio messages stimulated community debates and reinforced social norms around hygiene practices. However, inconsistent message exposure reduced priming impact in some areas, emphasizing the importance of unrelenting communication campaigns. Significantly, the study offers sufficient evidence to reject the null hypothesis which stated that trachoma vernacular radio messaging has no influence on preventive behaviour in West Pokot, Kenya. The empirical findings validate that vernacular radio communication considerably influences preventive health behaviour through emotional, cognitive, and social behavioural ways. In conclusion, vernacular radio priming plays a supportive role in trachoma prevention by

shaping attitudes, increasing awareness and promoting behaviour change. Nevertheless, long-term disease control measures require incorporation of media communication strategies with structural health interventions.

V. CONCLUSION & RECOMMENDATION

5.1 Conclusion

This study established that vernacular radio stations have widespread reach and were accessible across West Pokot County, making radio a crucial tool in the fight of Trachoma disease. The findings from the 8 FGDs confirmed that radio remains a trusted and regularly accessed source of information in Kakres, Tampalal, Sinenden, Remaa, Marich, Tapach, Kosulol, and Nyarkulian villages. The consistent mention of North Rift Radio, Ralai Radio and Kokwo demonstrates the central role these stations play in shaping community awareness and health communication. Further, regular broadcasting of Trachoma messages in 7 out of eight villages significantly enhances awareness, perceived severity and preventive behavior. Through repeated exposure listeners cognitively prioritize Trachoma as a serious health concern. The disease becomes salient, easily recalled and socially discussed within households and community forums. This aligns with media priming theory, which posits that repeated exposure increases cognitive accessibility and influences evaluation and behavior.

The Thematic analysis demonstrated that vernacular radio influences preventive behavior through issue salience, cognitive recall, agenda setting, behavioral reinforcement and trust in local language broadcasting. Participants indicated that repetition strengthens memory retention, encourages hygiene practices and stimulates discussions about disease prevention. However, findings from Nyarkulian village reveal that limited broadcasting weakens priming effect. Reduced exposure leads to lower urgency, diminished recall and weaker behavioral reinforcement. This confirms that priming effects are dependent on message frequency and consistency. Overall, the study concludes that vernacular radio in West Pokot is an effective and culturally relevant medium for priming preventive behavior against Trachoma. Consistent, repetitive and locally contextualized messaging significantly shapes how communities perceive and respond to public health threats.

5.2 Recommendations

Based on the findings of this study, repeated Trachoma vernacular radio messaging influenced preventive behavior in West Pokot. Therefore, this offers a starting foundation for public health stakeholders to strengthen consistency and regular scheduling of Trachoma messages across all vernacular radio stations in West Pokot. The findings clearly demonstrate that repeated and sustained exposure enhances issue salience and preventive behavior. As such ensuring frequent and structured broadcast especially on peak listening time will help in maintaining strong priming effects and reinforce control practices.

Additionally, there is a need to ensure equitable dissemination of Trachoma messages to all villages, particularly in areas where limited exposure was reported. Uniform broadcasting frequency across regions will minimize disparities in awareness, perceived severity and behavioral reinforcement. Consistent coverage across communities will strengthen collective engagement and support sustained public health outcomes.

REFERENCES

- Ageed, A., & Khan, M. (2024). Eliminating trachoma in Africa: The importance of environmental interventions. *Cureus*, *16*(1), e52358.
- Alamer, A. S. (2024). Behavior changes theories and models within health belief model research: A five-decade holistic bibliometric analysis. *Cureus*, *16*(6), e63143. <https://doi.org/10.7759/cureus.63143>
- Bargh, J. A., & Chartrand, T. L. (2000). The mind in the middle: A practical guide to priming and automaticity research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 253–285). Cambridge University Press.
- Chen, X., Munoz, B., Mkocho, H., Wolle, M. A., & West, S. K. (2021). Children as messengers of health knowledge? Impact of health promotion and water infrastructure in schools on facial cleanliness and trachoma in the community. *PLoS Neglected Tropical Diseases*, *15*(2), e0009119.
- Chweya, R. N., Onyango, C. A., Saigilu, S., Mwangi, C., & Gachohi, J. M. (2023). Spatial and network mapping of comorbidity with trachoma and visual-impairing non-communicable diseases in Kenya. *International Health*, *16*(1), 35–44.
- Cromwell, E. A., Courtright, P., King, J. D., Rotondo, L. A., Ngondi, J., & Emerson, P. M. (2009). The excess burden of trachomatous trichiasis in women: A systematic review and meta-analysis. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, *103*(10), 985–992.

- Duru, C. W. (2018). The relevance of agenda-setting theory in twenty first century journalism practice. *International Journal of Social Sciences and Humanities Reviews*, 8(2), 66–69.
- Emerson, P. M., Burton, M., Solomon, A. W., Bailey, R., & Mabey, D. (2006). The SAFE strategy for trachoma control: Using operational research for policy, planning and implementation. *Bulletin of the World Health Organization*, 84, 613–619.
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51–58.
- Frick, K. D., Lynch, M., West, S., Munoz, B., & Mkocho, H. A. (2003). Household willingness to pay for azithromycin treatment for trachoma control in the United Republic of Tanzania. *Bulletin of the World Health Organization*, 81(2), 101–107.
- Gichuki, P. M., Kimani, B. W., Kanyui, T., Okoyo, C., Watitu, T., Omondi, W. P., & Njomo, D. W. (2024). Using community-based participatory approaches to improve access to mass drug administration for trachoma elimination in a pastoral conflict area of Kenya. *PLoS Neglected Tropical Diseases*, 18(11), e0012653.
- Green, E. C., Murphy, E. M., & Gryboski, K. (2020). The health belief model. In *The Wiley encyclopedia of health psychology* (pp. 211–214). Wiley.
- Higgins, E. T. (2012). Accessibility theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 75–96). Sage.
- Iqbal, M., & Zahidie, A. (2022). Diffusion of innovations: A guiding framework for public health. *Scandinavian Journal of Public Health*, 50(5), 533–537. <https://doi.org/10.1177/14034948211014104>
- Iyengar, S., & Kinder, D. R. (1987). *News that matters: Television and American opinion*. University of Chicago Press.
- Karimurio, J., Ilako, D. R., Adala, H. S., Gichangi, M., & Kilima, P. (2006). Prevalence of trachoma in six districts of Kenya. *East African Medical Journal*, 83(4), 63–68.
- Koulouvari, A.-D., Margariti, A., Sakellari, E., Barbouni, A., & Lagiou, A. (2025). Applications of behavioral change theories and models in health promotion interventions: A rapid review. *Behavioral Sciences*, 15(5), 580.
- Kungu, J. N. (2010). *Factors influencing the effectiveness of health communication in Kenya* (Master's thesis, University of Nairobi).
- Lee, S. T. (2014). Predictors of H1N1 influenza pandemic news coverage. *International Journal of Strategic Communication*, 8, 294–310.
- Liu, D., Son, S., & Cao, J. (2023). The determinants of public acceptance of telemedicine apps: An innovation diffusion perspective. *Frontiers in Public Health*, 11, 1325031.
- Marquis, C., & Raynard, M. (2015). Institutional strategies in emerging markets. *Academy of Management Annals*, 9(1), 291–335.
- McCombs, M. (2004). *Setting the agenda: The mass media and public opinion*. Polity Press.
- McCombs, M. E., & Shaw, D. L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, 36, 176–187.
- Monahan, B. A. (2020). *The shock of the news: Media coverage and the making of 9/11*. New York University Press.
- Munguti, P. N. (2017). *Knowledge, practices and perceptions of trachoma in Kajiado County* (Doctoral dissertation, JKUAT).
- Nabi, R. L. (2003). Exploring the framing effects of emotion. *Communication Research*, 30(2), 224–247.
- Ng'etich, A. S., Owino, C., Juma, A., & Khisa, K. N. (2015). Knowledge and practices regarding trachoma in Kajiado County. *Journal of Public Health in Africa*, 6(1), 531.
- Nganda, J. M., & Mwithia, K. (2023). Health belief model review: Suggestions to consider in extending the model for application in the African context. *Howard Journal of Communications*, 35(3), 279–293.
- Njogu, L. W., Makalliwa, G. A., Kimani, B., Karimi, K., Kibet, Z., Njomo, D., ... & Gichuki, P. M. (2025). Facial cleanliness, environmental factors and the burden of trachoma in a pastoral conflict area of Tiaty East Baringo County, Kenya. *medRxiv*, 2025-10.
- Nyaga, R. G., & Gyamfi, P. A. (2026). Health communication in Africa: A systematic analytic review. In *The handbook of communication in Africa: Theory, research, and praxis* (pp. 113–133).
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.
- Rono, H. (2013). Mass treatment for trachoma: How does it all work? *Community Eye Health Journal*, 26, 38–39.
- Sarrasat, S., Meda, N., Badolo, H., Ouedraogo, M., Some, H., Bambara, R., ... & Head, R. (2018). Effect of a mass radio campaign on family behaviours and child survival in Burkina Faso: A repeated cross-sectional, cluster-randomised trial. *The Lancet Global Health*, 6(3), e330–e341.
- Tulving, E., & Schacter, D. L. (1990). Priming and human memory systems. *Science*, 247(4940), 301–306.
- Tversky, A., & Kahneman, D. (1973). Availability heuristic. *Cognitive Psychology*, 5(2), 207–232.
- Vasterman, P. L. M., & Ruigrok, N. (2013). Pandemic alarm in the Dutch media. *European Journal of Communication*, 28(4), 436–453.



- Weaver, D. (1991). Issue salience and public opinion: Are there consequences of agenda-setting? *International Journal of Public Opinion Research*, 3(1), 53–68.
- West, S. K., Bailey, R., Munoz, B., Edwards, T., Mkocha, H., Gaydos, C., ... & Quinn, T. C. (2013). A randomized trial of two coverage targets for mass treatment with azithromycin for trachoma. *PLoS Neglected Tropical Diseases*, 7(8), e2415.
- World Health Organization. (2022). *Trachoma fact sheet*. WHO.
- Zhang, X., Yu, P., Yan, J., & Spil, T. A. M. (2015). Using diffusion of innovation theory to understand the factors impacting patient acceptance and use of consumer e-health innovations: A case study in a primary care clinic. *BMC Health Services Research*, 15(1), 71.
- Zondervan, M., Kuper, H., Solomon, A., & Buchan, J. (2004). Health promotion for trachoma control. *Community Eye Health*, 17(52), 57.