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Leveraging Marketing Techniques for Disseminating Malaria Messages in Northern Nigeria: A Case Study

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ABSTRACT

Adaria intervention in Northern Nigeria had several gaps because transmission of the disease was aggravated by the warm weather which promoted mosquito breeding, and social determinants like malnutrition, which weakened immune systems, making people more vulnerable to illness. This study examined the application of marketing principles within the Community-led Monitoring (CLM) project, a Global Fund initiative to improve malaria interventions. CLM, among other things, was a development, health communication project that employed principles of marketing to communicate malaria prevention and treatment in some communities across Nigeria. The study used Social Cognitive Theory to analyse how health communication and community engagement influenced behaviour change. The CLM project used the four Ps of marketing – product, price, place, and promotion - to address gaps in existing interventions that focused on preventing and treating malaria. The results showed that the project empowered communities, leading to improved health systems driven by community members. This

KEYWORDS Community Engagement, Community-led Monitoring, Health Communication, Marketing Techniques, Public Health, Social Cognitive Theory

integration of marketing and health communication effectively mobilised community action and achieved positive health outcomes. Thus, the research demonstrated the potential of combining marketing strategies with health communication to combat important public health issues such as malaria. Considering the CLM model's success, incorporating marketing principles in health communication was recommended.

INTRODUCTION

Malaria is so pervasive in Nigeria that it is not uncommon to hear it referred to as "ordinary malaria", a testament to how little we regard it as a health challenge, having individually recovered from it countless times. Thanks to advances in medical and pharmaceutical sciences, this disease can be prevented and treated. That is why it is distressing to note that malaria is still affecting and killing people. In 2022 for

instance, out of the 249 million people who were infected with malaria, approximately 608,000 died (World Health Organisation, 2024).

According to the Nigeria Centre for Disease Control and Prevention (n.d), Malaria is a life-threatening disease caused by Plasmodium parasites spread to people through the bites of infected female Anopheles mosquitoes, also called "malaria vectors". The disease causes very unpleasant symptoms such as weakness and fever among other things in its victims (Buck & Finnigan, 2023). Beyond these terrible effects, malaria is the largest cause of death among children under the age of five in Nigeria (Ekure, 2024).

It has been estimated that about one-quarter of all malaria cases globally occur in Nigeria (Oyibo, Ntadom, Uhomoibhi, Oresanya, Ogbulafor, Ajumobi, Okoh, Maxwell, Ezeiru, Nwokolo, Amajoh, Ezeigwe, Audu & Conway, 2021). Also, about 80% of malaria cases and 90% of the deaths caused by this disease in the world are in Africa, with most of them being among pregnant women and children below the age of 5. Nigeria and the Democratic Republic of the Congo account for over 40% of the estimated total of malaria deaths in the world. The situation is so bad that a child under five dies of malaria almost every minute (UNICEF, 2024).

Beyond medical intervention, communication plays a key role in malaria interventions (Nyiam, 2020). The International Federation of Red Cross and Red Crescent Societies (2022) reveal that this disease can be prevented through the adoption of certain health behaviours such as sleeping under mosquito nets, but if people do not know this, they cannot do it. The Nigerian government has also been able to secure partnerships with international bodies that provide free malaria medicines in some states (U.S. Mission Nigeria, 2024), but if the people who are supposed to take these medicines are not adequately informed about this, they cannot take advantage of it.

Malaria prevalence is higher in Northern Nigeria than it is in other parts of the country. This is due to some climatic factors and other social determinants of health (Ugwu & Zewotir, 2020; Akinbobola & Hamisu, 2022). Mosquitoes - the vector for malaria – thrive in warm temperatures in this region, therefore the Plasmodium parasites within these vectors do the same. Also, conflict and humanitarian crises that ravage this region limit access to healthcare. They also bring about poverty and malnutrition which weaken the people's immune systems, making them more vulnerable to malaria. According to The Federal Ministry of Health, malaria causes a financial loss of about $\aleph32$ Billion yearly, with the largest share from the northern geopolitical zone despite the poverty there (Yusuf, Yusuf & Oladunni, 2019).

Overview of the Community-led Monitoring Project

The Community-led Monitoring (CLM) project started as a health communication intervention for malaria in Nigeria in 2019. At first, it was called the "Accountability and Advocacy Project". It was funded by The Global Fund and encompassed thirteen (13) states in the country namely Yobe, Kaduna, Katsina, Delta, Niger, Taraba, Adamawa, Jigawa, Kwara, Osun, Gombe, Ogun and Kano States.

The project was designed by a Non-Governmental Organisation (NGO) called the Civil Society for Malaria Control Immunisation, and Nutrition (ACOMIN). ACOMIN is one of the implementers of CLM for malaria in Nigeria (The Global Fund, 2022); and works in collaboration with the Ministries of Health, National and State Malaria Elimination Programmes, Primary Health Care Development Agency (PHCDA) and the Roll Back Malaria project, alongside several other international NGOs. The CLM initiative involved gathering regular feedback from healthcare providers, patients, and community members in selected communities regarding the malaria interventions they had access to. This information was used to advocate for improved malaria services and resource allocation in those communities. The initiative tackled three areas: ensuring that malaria services were available, accessible, and of high quality; advocating for increased government funding and community investment in malaria interventions; and improving the availability of qualified healthcare workers.

The CLM project made use of Community-based Organisations (CBOs) which were vetted, selected, and trained to facilitate Focused Group Discussions (FGD), conduct Client Exit Interviews (CEIs), and pay advocacy visits to relevant stakeholders. The CBOs provided individuals who formed "Community Accountability Teams" that were primarily responsible for implementing the project in the selected communities. The teams used FGDs and CEIs to gather information from the community members and leaders, concerning malaria. They also identified issues hampering malaria services at selected health facilities, as well as gaps in the health behaviours of the community dwellers. Using this feedback, they carried out root-cause analyses to decipher the real reason why the issues were there. Then they conducted targeted advocacies to the relevant stakeholders who could resolve the identified issues.

One of the objectives of the CLM intervention was to empower the community members to be proactive about their own health and learn to find solutions to challenges hindering that, as opposed to waiting for the government or other stakeholders to do this for them. Each Community Accountability Team was tasked to work with representatives from each community so that the person would learn their methods and distil them among the community's leaders. This was a strategy aimed at ensuring the sustainability of the project's successes.

The successes of the project included the following:

- 1. According to a Facebook post on ACOMIN's handle, on the 18th of July 2022, the Comprehensive Health Centre of Ungwan Maichibi community in Kaduna State had been neglected for four (4) years by the government and had gotten dilapidated as a result of that. This affected patronage of the Centre, leaving the community vulnerable to malaria attacks. The Community Accountability Team working in that community identified this as an issue that needed to be resolved and got to work on it. After a series of advocacy efforts from them, the state government finally awarded a renovation contract for the Health Centre, leading to its revitalisation.
- 2. Another Facebook post on the same handle, dated 30th January 2023, narrates the following story: A primary health centre called "Maternal & Child Health", at Bage Ward, Funakaye Local Government Area (LGA) of Gombe State was "very deplorable beyond renovation" because of poor routine maintenance. The community members in that region had increasingly shunned the health centre because of how bad the structure was. This was significant because low patronage could lead to drugs expiring without being used at the PHC, while the people who needed them suffered or even died without them among other disadvantages. The Community Accountability Team working in that community identified this as an issue and began to pay advocacy visits to relevant stakeholders who could help the situation. They were able to get the buy-in of some stakeholders at the local government level as well as a philanthropist in that community. The combined efforts of these people led to

the re-building of the health facility, leading to increased community trust for the health services rendered there.

3. One of the stories documented on ACOMIN's official website on the 19th of May 2022 reveals that a Community Accountability Team working at Mamudo health facility in Mamudo Community, Potiskum LGA, Yobe State identified that the facility's supply of long-lasting insecticide treated mosquito nets had been exhausted for about a month. Normally, the facility should have received a supply of these, which they were to give to pregnant women in the community for free. The absence of it meant that their pregnant clients would not get it, and be exposed to mosquito bites, increasing their risk of falling ill with malaria – a very dangerous condition which could lead to the illness or even death of these women and their babies. The Community Accountability Team advocated for a fresh supply among the relevant stakeholders who promptly delivered a fresh supply of the nets to the health facility.

RESEARCH OBJECTIVES

Given that malaria is such a significant health challenge in Nigeria, and several approaches have been taken over time to tackle it through health communication, it is worthwhile to investigate innovative communication-based solutions that yield desired results. By studying the application of marketing principles within the CLM project, this study will provide valuable insights into how strategic health communication and community engagement can drive behaviour change and enhance the effectiveness of malaria interventions.

Therefore, the objectives of the study are as follows:

- 1. To examine how the four Ps of marketing product, price, place, promotion were embedded into health communication in the case study.
- 2. To analyse the effectiveness of the marketing principles used in the CLM project.
- 3. To examine the influence of Social Cognitive Theory on health communication in the case study.
- 4. To evaluate the role of communication in community empowerment for improving health systems in the case study.

RESEARCH QUESTIONS

- 1. How were the four Ps of marketing product, price, place, promotion embedded into health communication in the case study?
- 2. How effective were the marketing principles used in the CLM project?
- 3. What influence did the Social Cognitive Theory have on health communication in the case study?
- 4. What was the role of communication in community empowerment for improving health systems in the case study?

THEORETICAL FRAMEWORK

The Social Cognitive Theory (SCT) serves as the theoretical framework for this research, particularly in understanding the dynamics of health communication and behaviour change within communities affected by malaria in Northern Nigeria. According to Bandura in Schunk (2012), Social Cognitive Theory emphasises the interplay between cognitive, environmental, and behavioural factors in shaping human functioning. It highlights the importance of vicarious learning, where individuals observe and model behaviours of others, symbolic processes such as language and

imagery in representing experiences, and self-regulatory mechanisms in guiding behaviour.

Bandura (2001) further states that social cognitive theory posits that people have some control over their lives and they exercise this through forethought and selfregulation. Within the context of this research, the theory is used to portray how members of the selected communities in Northern Nigeria use the information provided by the communication campaign under study, to exercise control of their behaviours and choices regarding malaria prevention and treatment.

LITERATURE REVIEW

Importance of communication in health interventions

Health communication simply means transferring information that promotes health in one way or the other. It encompasses communication efforts such as advocacy, behaviour change communication, social mobilisation and the like. In addition, Corcoran (2010) reveals that communication in the context of health takes place on several levels including the individual, group, organisation, community and mass media levels. The individual level refers to intrapersonal communication. It is a process through which a person processes the health information received into a decision about that issue. The group level is where interpersonal communication takes place - involving two or more people discussing a health matter. The organisational level of communication can take place at seminars, lectures and the like, where health professionals give and receive health information. The community level of health communication can involve public health campaigns within local communication that is facilitated by widespread channels such as television and newspapers.

As a field of study, health communication is offered as a specialised course influenced by several other academic fields - in many universities. It generally involves constructing, transmitting and measuring communication campaigns aimed at promoting health. Health communication initiatives target preventing disease, affecting people's behaviours regarding health, and influencing health policy among other things (Ratzan, 2010).

Health agencies and programs are also increasingly finding health communication relevant because transmitting important information concerning health issues has been found to contribute positively to disease prevention, positive behaviour change, and improved quality of life (Rogers, 1994; Rimal & Lapinski, n.d). For instance, many departments of Nigeria's Federal Ministry of Health have their own "ACSM units" – meaning Advocacy, Communication and Social Mobilisation units. These units oversee the communication efforts that are crucial for the prevention and treatment of each disease.

Furthermore, health communication has been known to be relevant in disease prevention and control. For instance, it has been discovered that greater exposure to health messaging may be associated with greater behaviour change (Friedman, Kachur, Noar & McFarlane, 2024). However, the receivers of the health messaging need to have some level of trust for the sender to comply effectively with the message's call-to-action (Cairns, de Andrade & MacDonald, 2013).

Marketing techniques in health communication

Healthcare establishments provide essential services that enhance quality of life and save lives, profoundly influencing their communities and driving economic growth. Effective communication is crucial for maximising the impact of healthcare services, ensuring that patients are well-informed and health institutions can thrive (Elrod & Fortenberry, 2020).

In line with the above, marketing techniques are sometimes used in health communication. The marketing approach to health communication involves a comprehensive understanding of the target audience and strategically addressing their behaviours and motivations, rather than relying solely on conventional messaging techniques. This has been called, "marketing communication in the health sector", and defined as, "the communication of products or services produced by health organisations to the potential users and convincing them about the benefits to be provided" (Ekiyor & Altan, 2020, p. 173).

In the same vein, to effectively apply marketing techniques in health communication, a deep understanding of both the issue and the target audience is crucial (Wymer, 2015). This is because the communication initiative will have to be strategically tailored using methods that may be unconventional – for instance, the mass media may not be appropriate for use in certain locations, and innovative means will be needed to spread information to a large group of people simultaneously.

It is worthy of note that, beyond the theoretical underpinnings of this subject, marketing techniques have been used successfully in various health communication initiatives. One notable example was when social marketing techniques were employed to increase awareness of syphilis in eight U.S. cities (Vega & Roland, 2005). In this case, it was found that the strategies promoted awareness and encouraged health-promoting behaviours. Also, Snyder (2007) found that health communication was found to be effective at changing people's behaviours regarding nutrition when the campaigns paid attention to some factors which include but are not limited to the specific behavioural goals of the intervention, communication activities and channels, and the message content and presentation.

METHODS

A case study – the Global Fund CLM malaria project - was selected for this research. This study focused on the implementation efforts in three (3) states in Northern Nigeria: Kaduna, Gombe, and Yobe States, between 2019 and 2023. These were selected because of the states' data availability on the digital platforms from which they were sourced.

The study utilises secondary data sourced from ACOMIN's official website and social media handles, focusing solely on the CLM project. Contributions from stakeholders directly involved in the project and data that provide significant insights into the implementation efforts and outcomes were also included.

The secondary data included articles, news reports and success stories from the organisation. The analysis involved identifying key themes and patterns related to the implementation efforts of the CLM project in Kaduna, Gombe, and Yobe States between 2019 and 2023. The data was then systematically reviewed to assess the effectiveness, challenges, and outcomes of the project, providing a comprehensive understanding of its impact in the selected states.

RESULTS

Some marketing principles and elements were found in the health communication activities of the CLM project. These can be classified under the four "Ps" of marketing: product, price, place, and promotion.

1. Product

The CLM project aimed to address gaps in the malaria intervention landscape in Northern Nigeria, focusing on advocacy and community relations rather than drug and commodity distribution. The "product" it introduced was strategic knowledge about malaria, which was highly effective due to its uniqueness, necessity, and ready market among stakeholders.

2. Price

The resources deployed in the CLM intervention included human resources, transportation costs, feeding allowances, communication materials, and time.

3. Place

The CLM project was implemented in 13 states supported by the Global Fund for malaria intervention in Nigeria, with this research focusing on Kaduna, Gombe, and Yobe States.

4. Promotion

Promotion involved communicating malaria information to relevant stakeholders, conducting root cause analyses to identify and address bottlenecks, and engaging in advocacy at multiple levels. Community workers affiliated with local Civil Society Organizations (CSOs) effectively conveyed messages tailored to their communities' languages, literacy levels, and cultures. Key promotional strategies included consistent messaging aligned with national guidelines and combining message frames to enhance effectiveness. Interpersonal channels were predominantly used due to the limited mass and social media access among the target audience.

DISCUSSION

The results indicate that integrating marketing principles into health communication activities can significantly enhance the effectiveness of public health interventions. The unique product strategy of providing strategic knowledge about malaria addressed critical gaps and met a clear need among stakeholders, demonstrating the importance of tailored, context-specific interventions. The deployment of resources (price) was essential for the project's implementation, highlighting the multifaceted investments required for successful health communication initiatives.

The targeted approach to place ensured that the project reached the communities most in need, while the promotion strategies effectively engaged community members. The use of local CSOs and interpersonal communication channels leveraged existing social structures and cultural knowledge, which proved more effective than external interventions. Consistent and combined message frames contributed to clear and compelling communication, facilitating better understanding and adoption of health behaviours. This corroborated the findings from the literature review which stated that the use of multiple frames in communication messages is more effective than using single frames (Florence, Fleischman, Mulcahy & Wynder, 2022). It also supports the assertion that the content of messages should clearly capture the sender's goals because of its potential to influence behaviour - the behaviour being modelled is likely to be reflected in the audience upon exposure to the message (Saleh & Pratomo, 2014).

The findings from this research also corroborate the Social Cognitive Theory's emphasis on the interplay between multiple factors in shaping human behaviour. For instance, several members of the benefiting communities of the CLM initiative found and adopted the desired, healthy behaviours through the combination of learning processes that the project introduced to them. Overall, the study underscores the value of applying marketing principles in designing and executing health communication projects to achieve meaningful and sustained impacts.

CONCLUSION

Through its focus on community engagement, tailored messaging, and strategic channel selection, the CLM project applied key marketing principles to promote malaria prevention and treatment behaviours in Northern Nigeria effectively. The initiative successfully empowered communities with strategic knowledge which they used to take charge of their health interventions, yielding notable outcomes. There were several communities where health facilities got built, renovated and/or supplied with malaria commodities as a result of CLM – the best part being that these developments were spearheaded by the community members themselves, after the Community Accountability Teams had inspired them with relevant information.

RECOMMENDATION

Considering the success of the CLM model in malaria intervention, it is recommended that the incorporation of marketing principles into health communication strategies become standard practice. Additionally, research should be conducted into how marketing principles can further boost desired results in malaria and other disease interventions. It will also be worthwhile for governments at all levels to consider funding CLM interventions as part of their health communication endeavours.

REFERENCES

- ACOMIN official website. (2022, May 19). Supply of LLIN at Mamudo Health Facility facilitated by the NFM3 project. ACOMIN https://acomin.org/supplyof-llin-at-mamudo-health-facility-facilitated-by-the-nfm3-project/
- Akinbobola, A. and Hamisu, S. (2022) Malaria and Climate Variability in Two Northern Stations of Nigeria. American Journal of Climate Change, 11, 59-78. doi: 10.4236/ajcc.2022.112004
- Bandura, A. (2001). Social Cognitive Theory: An Agentic Perspective. Annual review of Psychology. Vol. 52:1-26. https://doi.org/10.1146/annurev.psych.52.1.1
- Buck, E., & Finnigan, N. A. (2023). Malaria. National Library of Medicine. https://www.ncbi.nlm.nih.gov/books/NBK551711/
- Cairns, G., de Andrade, M., & MacDonald, L. (2013). Reputation, Relationships, Risk Communication, and the Role of Trust in the Prevention and Control of Communicable Disease: A Review. Journal of Health Communication, 18(12), 1550–1565. https://doi.org/10.1080/10810730.2013.840696
- Corcoran, N. (2010). Theories and models in communicating health messages. Sage.
- Ekiyor, A., & Altan, F. (2020). Marketing communication and promotion in health services. In Ayman, U., & Kaya, A. K. (Eds.). Promotion and Marketing Communications. IntechOpen.
 - https://books.google.com.ng/books?hl=en&lr=&id=Z0v9DwAAQBAJ&oi=fnd &pg=PA173&dq=Marketing+techniques+in+health+communication&ots=4ys M2a5mMi&sig=29qyjM3aIrknbvZ2dMK-mPMv-

pQ&redir_esc=y#v=onepage&q=Marketing%20techniques%20in%20health%20 communication&f=false

- Ekure, E. (2024). Paediatric Association of Nigeria World Malaria Day 2024 press release. Paediatric Association of Nigeria. https://pan-ng-org/pan-pressstatement-on-world-malaria-day-2024/
- Elrod, J. K. & Fortenberry, J.L. (2020). Marketing communications in health and medicine: perspectives from Willis-Knighton Health System. BMC Health Serv Res. 20(Suppl 1): 817. 10.1186/s12913-020-05598-4
- Facebook. (2022, July 18). A success story about the Comprehensive Health Centre of Ungwan Maichibi community in Kaduna State.

https://www.facebook.com/share/p/kRyPXnQxFoz8bm5T/?mibextid=oFDkn k

Facebook. (2023, January 30). A story on the Maternal & Child Health Centre at Bage Ward, Funakaye LGA of Gombe State.

https://www.facebook.com/share/p/ERV3imJYTj6csDJx/?mibextid=oFDknk

- Florence, E.S., Fleischman, D., Mulcahy, R. and Wynder, M. (2022), "Message framing effects on sustainable consumer behaviour: a systematic review and future research directions for social marketing", Journal of Social Marketing, Vol. 12 No. 4, pp. 623-652. https://doi.org/10.1108/JSOCM-09-2021-0221
- Friedman, A.L., Kachur, R. E., Noar, S. M., & McFarlane, M. (2024). Health Communication and Social Marketing Campaigns for Sexually Transmitted Disease Prevention and Control; What Is the Evidence of their Effectiveness? Journal of the Sexually Transmitted Diseases Association. 43(2S):p S83-S101, DOI: 10.1097/OLQ.00000000000286
- Nyiam, D. D. (2020). Strategic Communication and Management of Malaria Disease in Cross River State, Nigeria. International Journal on Transformations of Media, Journalism & Mass Communication. Vol 5 No 2.

http://management.eurekajournals.com/index.php/IJTMJMC/article/view/512
Oyibo, W., Ntadom, G., Uhomoibhi, P., Oresanya, O., Ogbulafor, N., Ajumobi, O., Okoh, F., Maxwell, K., Ezeiru, S., Nwokolo, E., Amajoh, C., Ezeigwe, N., Audu, M., & Conway, D. (2021). Geographical and temporal variation in reduction of malaria infection among children under 5 years of age throughout Nigeria. BMJ Global Health, 6(2). https://doi.org/10.1136/bmjgh-2020-004250

- Ratzan, S. C. (2010, October 29). The Status and Scope of Health Communication. Journal of Health Communication. Volume 1, 1996 - Issue 1. Pages 25-42. https://doi.org/10.1080/108107396128211
- Rimal, R. N. & Lapinski, M. K. (n.d). Why health communication is important in public health. Scientific Electronic Library Online.

https://www.scielosp.org/article/bwho/2009.v87n4/247-247a/en/ Rogers, E. M. (1994). The Field of Health Communication Today. Sage Journals. Volume 38, Issue 2. https://doi.org/10.1177/0002764294038002003

Saleh, A. M. & Pratomo, D. A. (2014). Political Digital Marketing: Political Message Construction on Indonesia President Election 2014 in Social Media. International Journal of Technical Research and Applications, Special Issue 10 (Nov-Dec 2014), 118-121. chrome-

extension://efaidnbmnnnibpcajpcglclefindmkaj/https://web.archive.org/web/20 180412030432id_/http://www.ijtra.com/special-issue-view/political-digitalmarketing-political-message-construction-on-indonesia-president-election-2014in-social-media.pdf

- Schunk, D. H. (2012). Social cognitive theory. In K. R. Harris, S. Graham, T. Urdan, C. B. McCormick, G. M. Sinatra, & J. Sweller (Eds.), APA educational psychology handbook, Vol. 1. Theories, constructs, and critical issues (pp. 101–123). American Psychological Association. https://doi.org/10.1037/13273-005
- Snyder, L. B. (2007). Health Communication Campaigns and Their Impact on Behavior. Journal of Nutrition Education and Behavior. Volume 39, Issue 2. Pages S32-S40. https://doi.org/10.1016/j.jneb.2006.09.004
- The Global Fund. (2022). Towards a Global Agenda for Community-Led Monitoring Meeting Report. https://www.theglobalfund.org/media/13440/crg_2022community-led-monitoring-meeting_report_en.pdf
- The International Federation of Red Cross and Red Crescent Societies. (2022). 17. Sleeping under mosquito nets. IFRC. https://epidemics.ifrc.org/volunteer

- Ugwu, C. L. J., & Zewotir, T. (2020). Evaluating the Effects of Climate and Environmental Factors on Under-5 Children Malaria Spatial Distribution Using Generalized Additive Models (GAMs). Journal of Epidemiology and Global Health. 10(4): 304–314. 10.2991/jegh.k.200814.001
- UNICEF. (2024). Malaria. UNICEF. https://data.unicef.org/topic/child-health/malaria/#more
- U.S. Mission Nigeria. (2024). World Malaria Day: United States and Nigeria Work Together to Support Healthy Communities. U.S. Embassy and Consulate in Nigeria. https://ng.usembassy.gov/world-malaria-day-united-states-and-nigeriawork-together-to-support-healthy-communities/
- Vega, M. Y. & Roland, E. L. (2005). Social Marketing Techniques for Public Health Communication: A Review of Syphilis Awareness Campaigns in 8 US Cities. Journal of the American Sexually Transmitted Diseases. 32, S30-S36. DOI: 10.1097/01.olq.0000180461.30725.f4
- Williams Simon N., Dienes Kimberly, Jaheed Jemma, Wardman Jamie K. and Petts Judith. (2023). Effectiveness of communications in enhancing adherence to public health behavioural interventions: a COVID-19 evidence review Phil. Trans. R. Soc. A.38120230129. http://doi.org/10.1098/rsta.2023.0129
- World Health Organization. (2024). https://www.who.int/news-room/questions-and-

answers/item/malaria?gad_source=1&gclid=CjwKCAjw3NyxBhBmEiwAyofDY RheeLegetPugw3O-xSHrcoM5nlKPI2Hdx4XuSrEQBfm9RIqsM3-OhoCnugQAvD_BwE

- Wymer, W. (2015). Formulating Effective Social Marketing and Public Health Communication Strategies. In: Wymer, W. (eds) Innovations in Social Marketing and Public Health Communication. Applying Quality of Life Research. Springer, Cham. https://doi.org/10.1007/978-3-319-19869-9_1
- Yusuf, W.A., Yusuf, S.A., & Oladunni, O.S. (2019). "Financial burden of malaria treatment by households in Northern Nigeria", African Journal of Biomedical Research / Vol. 22 No. 1, 1119-5096

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