APPLIED RESEARCH PROJECT — JULY 2023

Putting Gender Equality at the Heart of the Fight Against Malaria

GENEVA GRADUATE INSTITUTE

INSTITUT DE HAUTES ÉTUDES INTERNATIONALES ET DU DÉVELOPPEMENT

GRADUATE INSTITUTE OF INTERNATIONAL AND DEVELOPMENT STUDIES

THE GLOBAL FUND

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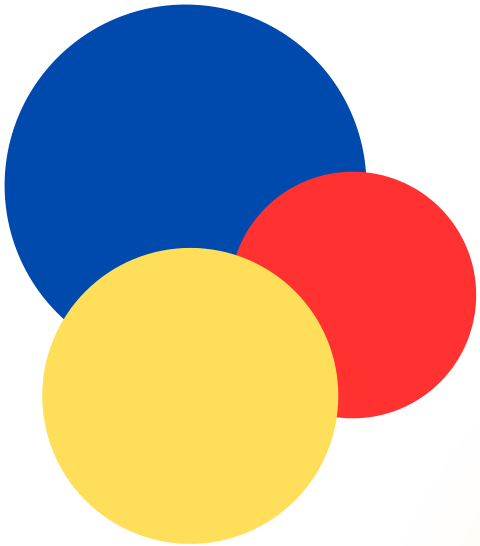

Acknowledgements

We would like to express our sincere gratitute to all of those who have contributed to the successfull completion of this report. Without their support and assistance, this would not have been possible.

First, we would like to thank our academic supervisor, Dr. Norita Mdenge and our tutor, Bram Barnes. Their guidance, unwavering support and encouragement have been instrumental to the finalization of this project and all through this process.

We would also like to extend our heartfelt thanks to the Global Fund, Thea Willis, Dr. Sussann Nasr, and their entire team. Their cooperation and their willingness to share their knowledge have been invaluable to this research.

Furthermore, we truly appreciate all the participants who willingly shared their time and insights, contributing to the primary data collection phase of this study. Their input has significantly enriched the findings and added depth to the analysis. With an special thanks to the World Health Organization (WHO), Medicines for Malaria Venture (MMV) and Amref Health Africa.

Moreover, we would like to extend our gratitude to the authors and researchers whose works have formed the foundations of this report and enriched our knowledge on this subject matter.

Lastly, we would like to thank the Graduate Institute of Geneva for this opportunity. We are very grateful for all the professors, researchers and students, that make the experience of the Applied Research Project, enriching and successful.

Thank you all,
Jeptum Tuitoek, Julia Peris, and Varnika Goel.

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Glossary

ANC: Antenatal Care

RBM: Roll Back Malaria

CCM: Country Coordinating Mechanism

CHW: Community Health Workers

DHS: Demographic and Health Surveys

IPTp: Intermittent Preventive Treatment in Pregnancy

ITNs: Insecticide-treated Nets

IRS: Indoor Residual Spraying

KMS: Kenya Malaria Strategy

KMIS: Kenya Malaria Indicator Survey

KVP: Key Vulnerable Populations

LLINs: Long-Lasting Insecticidal Nets

MIS: Malaria Indicator Survey

MMV: Medicines for Malaria Venture

MSP: Malaria Strategic Plans

MTR: Mid-Term review

NMST: Nepal Malaria Strategic Plan

PHC: Primary Healthcare Centre

RSSH: Resilient and Sustainable Systems for Health

SMC: Seasonal Malaria Chemoprevention

WHO: World Health Organisation

Executive Summary

Gender inequality continues to permeate global and local health services around the world, resulting in unequal access to prevention, diagnosis, and treatment. Women and girls particularly continue to be disadvantaged in accessing primary health care in their communities due to socio-cultural, economic, and political factors. These limit their decision-making power, their access to resources and information, and basic services. Malaria, in particular, poses a significant threat to the health of women and girls in communities worldwide, exacerbating the existing gender inequalities. The impact of the disease on women's and girls' health has been detrimental and overwhelming and continues to place communities at risk.

In collaboration with the Global Fund, the Geneva Graduate Institute has undertaken a comprehensive research effort to explore the ways in which gender transformative programming and practices can strengthen the Global Fund's approach to addressing gender equality and malaria. This report examines the link between gender equality and malaria outcomes in societies affected by disease. It highlights the importance of addressing gender inequalities in accessing malaria prevention and treatment services, particularly for women and girls. The Global Fund is a key actor in the fight against malaria, and they have an important role to play in establishing critical and evidence-based, gender transformative practices in the fight against malaria.

The report emphasizes the critical need to move beyond gender-responsive programming towards gender transformative approaches, which aims to address the root causes of gender inequality within society.

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The report also highlights the existing gender disparities in healthcare access, including barriers rooted in social and cultural norms, gendered roles, and ineffective data collection practices, among others. These disparities perpetuate the vicious cycle of gender inequality hindering efforts to eliminate malaria.

The evaluation of the approaches employed by the Global Fund and its partners reveals that while there has been some progress made in gender transformative programming, there is a lack of tools and mechanisms to ensure effective implementation at community level. This report recommends engaging stakeholders at the local community level and promoting community-led transformative ideas, solutions, and strategies to incorporate diverse perspectives. Additionally, the report emphasizes the importance of multisectoral collaboration, gender equality in leadership across all levels, cross-cutting programming and resource collaboration. Adopting a fundamental human rights-based approach is also crucial to fostering a comprehensive and equitable healthcare strategy.

Overall, the report underscores the significance of gender-transformative practices and programming in malaria control and elimination efforts. It highlights the necessity of addressing harmful gender norms and societal roles and engaging diverse stakeholders, particularly women, at all levels. Achieving these goals requires the collective efforts of governments, community leaders, civil society organizations, and research institutions. By prioritizing gender equality and gender transformative approaches, we can strive towards a more equitable and inclusive healthcare system that effectively addresses malaria and reduces gender inequality

Introduction

Malaria is a deadly, however preventable and treatable, vector-borne disease that affected an estimated 247 million people, provoking 619,000 deaths, in 2021. [1] Although malaria does not distinguish between genders in infecting its victims, there is growing evidence that different levels of exposure, vulnerability and access to malaria prevention and treatment are closely related to gender. Making hundreds of millions of pregnant women and children under the age of five especially vulnerable to malaria.[2] According to the WHO, gender includes "socially constructed norms, behaviors, and roles associated with being a woman, man, girl, or boy, as well as relationships with each other. As a social construct, gender varies from society to society and can change over time." [3] Various studies over the years have shown how gender norms affect care-seeking strategies and behaviors and impact women's health. Drawing from an intersectional lens, various social categories like race, class, ability, sexuality, and regional differences dynamically affect health outcomes.

While significant progress has been made in reducing the burden of malaria over the past decade, there are still persistent gender disparities in access to prevention, diagnosis, and treatment. Women and girls are often disadvantaged due to social and cultural norms that limit their mobility and decision-making power. As a result, they may face barriers in accessing malaria prevention measures and this may negatively impact the health of their families and themselves.

There is a call for a considerable shift in healthcare policies by activists, academics, civil societies, and communities to highlight gender equity and move from gender-responsive towards gender transformative approaches.

The difference is that while gender-responsive programming "includes specific action to try and reduce gender inequalities within communities," gender-transformative programming "is designed around a fundamental aim of addressing root causes of gender inequality within society". [4]

To enhance the efficacy of malaria programs and policies implemented by the Global Fund, a comprehensive investigation and analysis of the best practices adopted by Global Fund, their partners, and other organizations is imperative. This approach will facilitate a better understanding of the existing gaps and provide a foundation to build, thereby resulting in better programs and policies. It is important to recognize that several communities are disproportionately affected by the disease and are caught in a vicious cycle of replicating gender-based inequalities that adversely affect healthcare access, while conversely, malaria perpetuates gender inequalities, leading to a vicious cycle. Therefore, the elimination of malaria is critical to transforming the vicious cycle into a virtuous one, thereby improving the lives of those who are disproportionately impacted and promoting gender equality.

Gender inequality is a pervasive issue in many societies, including in some in sub-Saharan Africa and Asian countries, where malaria is rampant. [5] The socioeconomic and cultural factors that are deeply ingrained in these communities and contribute to gender inequality include norms, roles, stereotypes, practices, attitudes, traditions, and beliefs. These factors often result in unequal power balances in households and communities, leading to limited access to information, healthcare services, poor data, individual behavior, ability to earn a living, decision-making power, risk perception, and poorly planned policies.To enhance the efficacy of malaria programs and policies implemented by the Global Fund, a comprehensive investigation and analysis of the best practices adopted by Global Fund, their partners, and other organizations is imperative. This approach will facilitate a better understanding of the existing gaps and provide a foundation to build, thereby resulting in better programs and policies. It is important to recognize that several communities are disproportionately affected by the disease and are caught in a vicious cycle of replicating gender-based inequalities that adversely affect healthcare access, while conversely, malaria perpetuates gender inequalities, leading to a vicious cycle. **Therefore, the elimination of malaria is critical to transforming the vicious cycle into a virtuous one, thereby improving the lives of those who are disproportionately impacted and promoting gender equality. It is important to understand gender as a key factor in socio-economic, cultural, and systemic barriers, highlighting how identifying these issues can lead to continued and improved programming.**

These factors often result in unequal power balances in households and communities, leading to limited access to information, healthcare services, poor data, individual behaviour, ability to earn a living, decision-making power, risk perception, and poorly planned policies.

This report further focuses on Nepal in the elimination setting and Kenya in the control setting as case studies for malaria control efforts. Nepal entered the elimination setting in 2017, [6] aiming to completely halt local transmission of malaria within its borders and Kenya is in the control setting, focusing on reducing the number of malaria cases and associated burden. In the elimination setting, a country has to implement targeted and intensive interventions to identify and eliminate any remaining pockets of malaria transmission. These measures include active case detection, targeted interventions in high-risk areas, and robust surveillance systems. The objective is to achieve zero local transmission of malaria. [7] In contrast, Kenya, operating in the control setting, aims to decrease malaria transmission while maintaining a certain level of local transmission. Control efforts in Kenya involve the implementation of interventions such as insecticide-treated bed nets, indoor residual spraying, prompt diagnosis, effective treatment, and preventive measures like intermittent preventive treatment.[8] This report examines the scope of gender transformative strategies within Nepal's malaria elimination setting and Kenya's malaria control setting, taking into account socio-cultural norms. It analyzes how these strategies address gender inequalities and challenges in accessing malaria prevention and treatment services.

Literature Review

Women and Children Under Five

Socio-economic, systemic, and cultural gender bias and practices disproportionately affect women and children, leading to a higher vulnerability to malaria due to limited access to prevention, treatment, and elimination services. [9] Norms, stereotypes, roles, and beliefs significantly contribute to women's diminished power and status within their communities and households, resulting in limited economic and social resources to access healthcare. This gender-based discrimination leads to a lack of information, education, economic opportunities, time, and status.[10] **In Kenya, one key factor contributing to gender disparities in malaria prevention and treatment is the limited dissemination of information, often influenced by lower literacy rates among women.[11] Cultural and social norms may discourage women from sleeping under long-lasting LLINs due to gender-based sleeping habits.** Studies reveal women hold primary responsibility for obtaining, hanging, and using the nets, thereby affecting net use and coverage. [12]

Research across sixteen Sub-Saharan countries has shown that economically and socially empowered mothers are more likely to seek healthcare for their children and access high-quality care.[13] A study in Mwena Division, Central Kenya shed light on how women's lack of control over resources despite their substantial contributions to the agricultural sector hinders access to healthcare. Cultural beliefs and gender roles in decision-making processes perpetuate this inequality, limiting women's ability to influence household and economic decisions. [14]

Pregnant Women & Newborns

Malaria has a significant impact on maternal mortality rates, directly and indirectly. Around 10,000 pregnant women die from malaria infections each year, with malaria also contributing to anaemia among pregnant women, increasing the risk of postpartum haemorrhage, the leading cause of maternal deaths. [15]

IPTp and ITN interventions promote infant health before birth, lowering the risk of neonatal mortality due to malaria by 18% within the first 28 days of life. [16] Each year, an estimated 75,000 to 200,000 infants die due to malaria infections acquired during pregnancy. [17] According to the Life Saved Tool (LiST), despite falling short of the targeted global coverage of 80%, IPTp and ITN interventions between 2009 and 2012 saved an estimated 94,000 newborn lives.[18] Meeting the coverage targets could have tripled this number, potentially preventing 300,000 neonatal deaths. [19]

It is crucial to ensure that pregnant women receive at least three doses of IPTp to prevent and reduce maternal and child mortality rates. [20] The RBM Partnership to End Malaria also reported that in 2019, 11 million pregnant women in sub-Saharan Africa were infected with malaria resulting in 900,0000 children born with a low birthweight and 10,000 maternal deaths.[21] These figures illustrate the urgent need to protect this vulnerable group from further suffering from the disease.

Adolescent Girls

Adolescent girls face barriers in accessing malaria treatment and prevention services due to socio-economic and cultural factors such as taboos, stigma, and shame.[22] For example, in Nepal, the cultural practice of Chhaupadi, whereby menstruating girls and post-partum mothers are secluded outside the main household, exposes them to various hazards, including extreme weather, animal attacks, and mosquito bites.[23] Despite a 2017 law prohibiting Chhaupadi, the practice continues. These cultural practices which are based on the taboo impact women's health, and exposure to malaria. Changing long-standing cultural practices requires a multifaceted approach that involves education, awareness campaigns, community engagement, and enforcement of laws and regulations. It is essential to work with local communities, religious leaders, and stakeholders to address the underlying beliefs, attitudes, and norms that sustain the practice.

Malaria has been reported as the 5th leading cause of death for 10-14-year-old girls which is exacerbated by their treatment and status in society and within their communities.[24] Socioeconomic and cultural factors reified in communities through continued power imbalances such as norms, stigma, low status and power, traditions, and beliefs prevent adolescent girls from seeking urgent preventative healthcare services. Negative attitudes from family, community, and healthcare workers, along with financial constraints and stigma, increase the risk for pregnant adolescent girls who avoid ANC visits.[25] Addressing these entrenched practices and beliefs is crucial to ensure that adolescent girls receive necessary preventive care, as they are a highly vulnerable group.

Community Health Workers (CHWs)

CHWs are vital in addressing socio-cultural-economic barriers and improving health outcomes, particularly in malaria control. Numerous case studies support their role in combating malaria by integrating remote populations, introducing prevention strategies, providing peer education, and promoting positive health-seeking behavior. CHWs can create a safe environment for women to discuss their situations openly.[26] This trend is visible in other parts of the world. For example, CHWs detect nearly 30% of all malaria cases in the remaining hotspots in Lao PDR and more than 50% of all reported malaria cases in select regions of Honduras.[27] Thus, several reports recommend training CHWs based on the latest practices, scientific evidence, and gender norms.. A study mentions Community Health Councils (CHCs) played a role in decreasing barriers related to behavior, norms, and understanding of malaria in Haiti. The major barrier for CHCs was a lack of motivation, political will, and economic support from government programs. Integration of CHCs into the primary healthcare system, evaluating their impact on malaria epidemiology, and strengthening their collaboration with active surveillance and response activities are key recommendations for improving their effectiveness.[28]

Case Study: Kenya

Malaria remains a significant public health problem in Kenya, with a high number of clinical cases and mortality rates, particularly affecting children. The country's diverse climate and geography contribute to variations in malaria transmission patterns across different regions.[29] To address this burden, the Kenya Malaria Strategy (KMS) 2019-2023 was developed.[30] Its goal is to reduce malaria cases and deaths by 75% compared to 2016 levels by 2023, ultimately achieving a malaria-free Kenya. The KMS takes a comprehensive approach, emphasizing human rights, gender equity, sustainable financing, community health services, and strong health systems. It aligns with national and global strategies and will be implemented through partnerships, coordination, and adherence to monitoring and evaluation frameworks. Significant gaps were highlighted in the 2015 Kenya Malaria Indicator Survey (KMIS). Despite many Long-Lasting Insecticidal Nets (LLINs) distributed, universal coverage among the target population remained low at 47%.[31] The data underscores the need for continued efforts to overcome barriers to LLIN utilization and to implement strategies that ensure equitable access and utilization of LLINs across all communities and populations at risk of malaria. KMIS further illustrated that only 58 percent of pregnant women aged 15-49 in Kenya slept under LLINs.[32] This data emphasizes the importance of exploring and understanding the underlying gender norms, cultural practices, and social factors that may influence women's health-seeking behavior and adherence to preventive measures.

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Case Study: Kenya

Gender and Malaria

There is often an assumption that malaria is gender-blind. However, various studies have shown that in Kenya, gender plays a significant role in malaria vulnerability and prevention, especially among pregnant women, particularly those who are young, poor, rural, or living with HIV.[33] Limited resources and caregiving responsibilities can hinder women's ability to adhere to treatment.

Targeted interventions are needed to address gender disparities in malaria prevention and treatment, focusing on improving women's access to information, education, and healthcare services. It is also essential to consider cultural and contextual factors when designing information dissemination strategies. MIS-2020 suggested that thirty-four percent of women had heard or seen a malaria message in the 6 months preceding the survey. This is below the national target of 80% as outlined in the Kenya Malaria Strategy 2019-2023.[34] Understanding local customs, beliefs, and social structures can help effectively tailor messages and interventions to resonate with the target audience. **Gender is a critical factor that cuts across all areas of health, and valuable lessons can be learnt from successful gender-focused interventions in other sectors and diseases.** The response to HIV, for instance, has witnessed heightened attention and efforts to address gender inequality in the past decade. Although malaria transmission differs from HIV, there are commonalities regarding issues such as healthcare access and decision-making, which are influenced by gender irrespective of the specific health outcome being addressed.[35] By leveraging the experiences and achievements of other programs, valuable time and resources can be saved in addressing gender disparities in malaria and similar health challenges.

Case Study: Nepal

In Nepal, the government has made significant efforts over the past three decades to eliminate malaria by implementing various interventions such as indoor residual spraying, insecticide-treated nets, rapid malaria diagnosis, and effective treatment. These measures have resulted in a decline in suspected and confirmed malaria cases and their severity. Nepal has achieved the Millennium Development Goals target of halting and beginning to reverse the incidence of malaria.[36] The government has implemented the Nepal Malaria Strategic Plan (NMSP) 2014-2025. The strategic plan focuses on enhancing the quality of and access to early diagnosis and treatment, strengthening programmatic and technical capacities, and promoting evidence-based decision-making.[37] Nepal's Country Coordinating Mechanism (CCM) plays a crucial role in the national response to HIV/AIDS, TB, and malaria. Established in 2002, CCM Nepal operates as an independent entity guided by the Global Fund's policies and serves as a critical component of the Global Fund architecture. This multi-stakeholder partnership brings together representatives from various sectors, including government organizations, multilateral/bilateral agencies, non-governmental organizations, academic/research institutions, the private sector, and individuals affected by these diseases.[38]

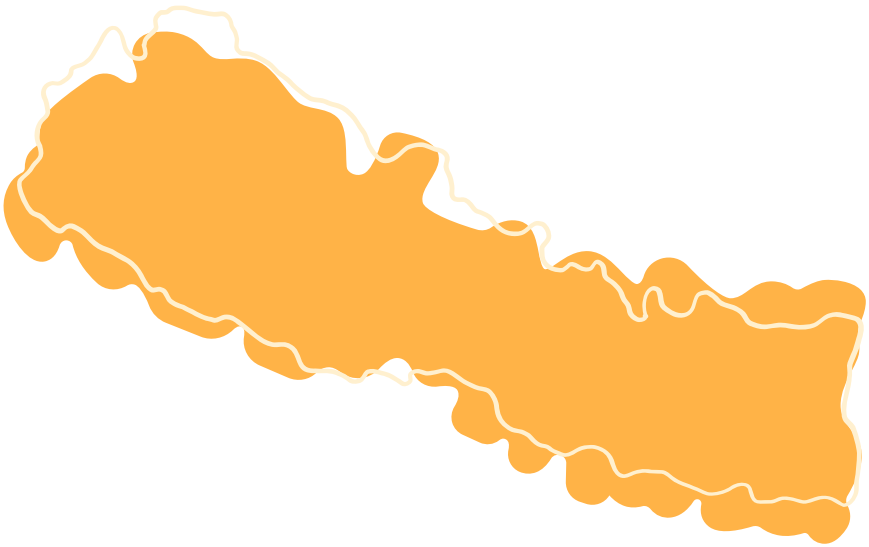
Nepal has achieved the Millennium Development Goals target of halting and beginning to reverse the incidence of malaria.

Case Study: Nepal

Gender and Malaria

A research examines the influence of sociocultural factors on malaria transmission in Nepal, specifically in rural Nepal.[39] The study emphasizes the impact of living patterns and communal gatherings, attended mainly by male members, which heighten the risk of mosquito bites. There is a significant role of decision-making, primarily assumed by elderly males, in shaping healthcare choices and impeding national malaria elimination initiatives. Furthermore, population mobility, characterized by seasonal migration and movement to malaria-endemic regions in India, contributes to the spread of malaria.[40] Therefore, it is evident how sociocultural practices and migration affects malaria outcomes, especially in rural parts of Nepal.

Nepal also has a large community health volunteer force. In the 1980s, Nepal implemented a female community health volunteer program known as "Mahila swoyemsewika," which has played a vital role in the country's health system for the past three decades. Initially focused on family planning, the parts of these volunteers gradually expanded to encompass various health programs.[41] With over 50,000 volunteers currently active in Nepal, they engage in health promotion, provide health services, and collect demographic data for their communities. Their contributions have significantly reduced child and maternal mortality through initiatives such as immunization, childhood illness management, family planning, and maternal health preparation. However, it is critical to examine how 'volunteer' practices, which do not include remuneration, might enforce gender roles and contribute to inequalities.



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Framework [42]

Context	**Relevance** To understand the different socio-cultural and political contexts will have different gender norms and unique issues.To understand various economic barriers which decide freedom to make health and purchasing related decisions.	To conduct gender analysis, map gender into national malaria programmes.To involve women from communities more into decision making process
Process	**Participation** Understanding gender norms- Interacting with communities	Incorporating women's voices and participation into designing programmes. Description of how various socio-cultural norms create health outcomes. Recognition of gender based violence creating inequalities and access to healthcare.
	Involving stakeholders- *healthcare workers, primary healthcare* Understanding barriers and access to health facilities	To involve stakeholders, comprehensive analysis and data collection to extend beyond biomedical understanding of malaria and focus on accessibility. For example, what limits women's opportunity to visit a primary health care center?
	Involving stakeholders- *community health workers, women, community leaders etc* **The role of communities and community health workers** **To understand leadership**	To understand what role community health workers are playing as first contact, dissemination of information. And if these community health workers are actively remunerated and work in safe conditions.To understand leadership- To gain insights into the extent of women's involvement in decision-making processes and their positions of authority, By exploring the representation and positions held by women in decision-making structures, a comprehensive understanding of their involvement and influence in shaping policies and strategies was evaluated.
	Efficiency and replicability Data collection	To understand how data is being collected at ground level to understand unique challenges. For example- Is data routinely collected, desegregated, made available, and used for development of future plans.

Gender Transformative Best Practices

Training and Leadership

Women play a critical role as community health workers in the fight against malaria, constituting 70% of this workforce.[43] Despite their frontline position, women bear the largest burden of the disease. In some villages, women community health workers facilitate women's access to quality education and information on testing, treatment, control, and prevention. They also play a significant role in distributing ITNs and implementing vector control measures.[44] Investing in female community health workers has been highly effective in Global Fund programs through training, consistent employment, and leadership roles. Training female community health workers, IRS sprayers, advocates, and distributors to be sensitive to gender, age, and cultural aspects has improved net use, antenatal care attendance, and access to households for vector control. [45]

Concerns arise when programs rely on unpaid or underpaid community health workers, predominantly women.[46] This reliance on unpaid or underpaid labor can contribute to the perpetuation of gender inequalities by undervaluing their work, exacerbating their financial vulnerability, and increasing their unpaid caregiving responsibilities. Inadequate employment terms, gender-based wage gaps, unsafe working conditions, and instances of workplace sexual harassment and violence can have detrimental effects on the physical and mental well-being of these health workers, ultimately impacting the quality of care they provide to their patients. Therefore, the employment of women as community health workers may contribute to achieving disease-related goals.[47]

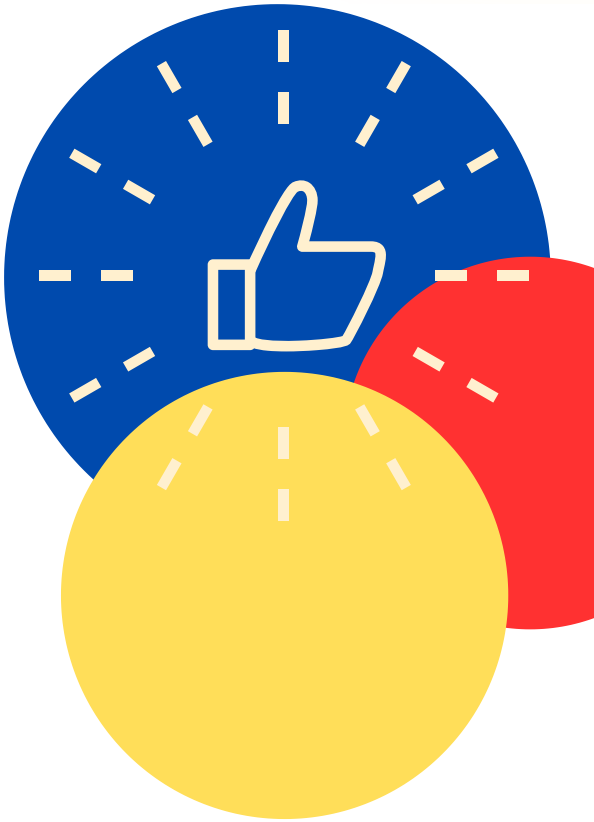
Gender-Sensitive and Sex-Disaggregated Data

Data is crucial in malaria programming for identifying the most vulnerable and disadvantaged groups and determining the factors and determinants that contribute to the prevalence of malaria in specific communities. Understanding these issues equips all stakeholders with the knowledge and tools necessary to combat the disease.[48] The Global Fund has developed tools and systems like the Malaria Matchbox to identify socio-economic and cultural factors that impede access to quality malaria prevention, treatment, and control.[49] Collecting sex-disaggregated data is essential to ensure that women and girls are recognized as vulnerable groups at sub-national and local levels. Sex-disaggregated data must be used at all levels to improve programming and policies that protect underserved groups, inform national and global policies, and enhance investments in malaria programming.[50]

Gender Transformative Best Practices

Education, Information, and Advocacy

Socioeconomic, systemic, and cultural factors create barriers for women and girls in accessing accurate information and education, leading to lower literacy levels. Clear and easily digestible information must be available to women and girls as they are the most vulnerable to gendered inequalities and malaria exposure. Women play a significant role in understanding and determining malaria outcomes, particularly in caregiving roles. Thus, having a vague understanding of malaria had negative consequences for families. Often parents recognized malaria symptoms well, but their understanding of the cause of the disease was vague and caused delays in seeking treatment. A recommendation from these studies was to integrate a gendered lens into Information, Education, and Communication (IEC) practices.[51] The Global Fund has implemented gender-sensitive advocacy campaigns in targeted communities, aiming to improve health literacy and resource access for women and girls. These campaigns cover various topics such as prevention strategies, available treatments, service information, and elimination methods. By addressing the specific challenges faced by women and girls, these initiatives contribute to reducing gender-based disparities and enhancing malaria control efforts.[52]



Methodology

This research study utilized a qualitative methodology, employing interviews and a literature review to gather data and insights. The study included six key informant interviews with experts in the fields of malaria and gender from International Geneva, Kenya, and Nepal. We conducted four interviews with experts in Geneva, one expert in Kenya, and one expert in Nepal. We utilized over 50 resources, including 20 global health reports from the Global Fund, the WHO, and their partners. A structured interview guide, comprising 12 questions, was developed to facilitate discussions with participants. These questions delved into the challenges faced by organizations in malaria programming and explored strategies and best practices currently being implemented by the Global Fund and other organizations. [53]

The primary research and data collection was conducted through six key informant interviews (KII) with individuals serving as senior advisors in gender, malaria, and research. These interviews were conducted with representatives from the Global Fund, the World Health Organization (WHO), Medicines for Malaria Venture (MMV), and Amref Kenya. Through these key informant interviews, we were able to gather valuable insights and information relevant to the research questions under investigation.[54] These interviews proved instrumental in visualizing the link between gender inequity and malaria outcomes and gained insights on gender-responsive and gender-transformative interventions already being implemented. By addressing the initial three research questions, we were able to subsequently explore avenues for strengthening gender equality in Global Fund-supported malaria programing. [55]

Findings & Recommendations

Findings

The Global Fund requires non-discrimination policies and addresses gender as part of its five human rights principles for all grant recipients, addressing gender through non-discrimination. All Global Fund grants require a Protection Against Sexual Exploitation and Abuse policy. They also provide substantial technical guidance on gender-responsive and transformative programming, such as the Technical Brief on Equity, Human Rights, Gender Equality, and Malaria. However, monitoring and implementation of these guidelines by countries are challenging to track, lacking a ground-level mechanism for enforcement.

Another significant challenge is integrating the Malaria Matchbox into the planning processes of National Malaria Control Programs and global fund applications.[56] By incorporating this tool, countries can translate identified barriers into actionable measures, bridging the gap between assessment and implementation. Furthermore, the findings and recommendations from the gender analysis should be integrated into the subsequent four or five-year strategic plan. These plans will guide malaria programming and facilitate resource acquisition from the Global Fund. Embedding gender considerations in the strategic planning process enables countries to effectively address gender disparities and foster inclusive and equitable malaria interventions.

The Global Fund involves affected communities in the malaria grant design through an accountability mechanism. Communities and civil society submit their priorities alongside funding requests every three years. The Country Coordination Mechanism (CCM) reviews and responds to these priorities, involving various stakeholders. Community and civil society representatives have equal access to grant data and participate in all stages of the process to ensure community engagement in addressing malaria.

Regarding biomedical research, Medicines for Malaria Venture (MMV) maintains a register to collect data on the use of Artemisinin Combination Therapies (ACTs) in pregnant women. Despite challenges in gathering evidence, the register has been operational in Kenya for two years. MMV conducts pharmacokinetic analysis to determine appropriate dosages for pregnant women and follows ethical and scientific standards for the first clinical trial. MMV also investigates the safety of antimalarial drugs during breastfeeding. These efforts improve the understanding and treatment of malaria in pregnant women, considering their specific needs and potential risks.

Gender Roles

The social and political context significantly influences the exclusion of both men and women and determines effective engagement in malaria response. Health-seeking behavior is shaped by socio-cultural norms. Women, as mothers and caregivers, often play a pivotal role in malaria response. Gender transformative approaches require understanding gender roles and socio-political contexts. One interview respondent highlighted a concerning trend of delayed administration of IPTp, especially the crucial first dose.

The low uptake of IPTp, despite its cost-effectiveness and availability, can be attributed to social norms and cultural factors. An interview responder pointed how women, particularly when pregnant, face barriers in decision-making processes, requiring permission and financial support from their husbands to access health clinics. Responsibilities of caring for children further hinder their ability to seek necessary care, extending beyond IPTp to general healthcare access. These challenges are influenced by gender dynamics, religious beliefs, and perceptions of biomedical interventions. Gender roles affect susceptibility to malaria, access to services, and disease outcomes. In terms of biological paradigm, evidence shows that pregnant women are more susceptible to mosquito bites. However, susceptibility in terms of culture and behavior, because of access to prevention products, bed nets, ITNs, and women having access to medicines may affect the outcomes.

"My role was developing the strategy and looking at the broad development agenda. And it was quite remarkable in Uganda because a lot of issues were around gender and gender violence and how gender impacted people's broad lives, let alone the impact on health".

SUGGESTIONS

Involving women and community members

"What I think is really interesting is going down to a much more local level, so going down to the community, the district, down to the community level."

Directly engaging with women in communities and collaborating with local community-based organizations focusing on gender-related issues is crucial during planning and design stages. This approach allows for the development of community-led, context-specific gender transformative ideas, solutions, and strategies. Recognizing the uniqueness of each community and moving away from uniform global lenses is essential. Localization enables a deeper understanding of socio-cultural norms and barriers. Engaging traditional healers and faith leaders is an effective way to address these barriers through social behavior change. Their involvement helps shift harmful gendered norms and cultural beliefs, emphasizing the importance of timely access to healthcare services, including IPTp administration. By involving women and community leaders, a connection is established between public health initiatives and community values, increasing acceptance and adoption of malaria control measures. Dissemination of information should be timely and tailored to resonate with the target audience by considering local customs, beliefs, and social structures.

Strengthening Gender Analysis

A gender-responsive approach in research and analysis aids in identifying opportunities to tackle challenges in malaria prevention. Gender analysis is vital for developing inclusive and effective national strategic plans for malaria programs. Important indicators include sex and age-specific access to ITNs, appropriate malaria treatment rates, women's uptake of IPT, perceived malaria risk, and decision-making power among married women. The "Gender Analysis Toolkit for Health Systems" provides valuable guidance on conducting gender analysis and selecting gender-sensitive indicators.[57] By incorporating gender-sensitive indicators, the Global Fund can identify and address gender-based disparities in malaria outcomes.[58]

Focus on Gender Based Violence (GBV)

The Global Fund can address GBV as a risk factor for malaria transmission by ensuring that malaria interventions are accessible and safe for women and girls who may face GBV when seeking treatment or engaging in prevention activities. Prioritizing discussions on GBV at all levels is essential to address this issue in malaria programs, particularly in women's health service delivery. Antenatal care, closely linked to malaria services, may be inaccessible to women experiencing GBV, increasing their malaria risk and adverse pregnancy outcomes.[59] Addressing GBV in malaria programs promotes women's health and safety and enhances their participation in prevention and control efforts. This involves tackling the underlying causes of violence, such as harmful gender norms and unequal power relations, and providing support and services to survivors. Sensitization and GBV training at country-level offices, collaboration with GBV-focused civil society organizations, and integrating the basic understanding of psychosocial support for survivors are key strategies. A comprehensive gender analysis, including an understanding of GBV and socio-cultural contexts, is crucial. [60]

Kenya

During the interview, it was highlighted that socio-cultural norms often result in women relying on male family members for accessing healthcare services. Support, transportation, and facility access are dependent on men, seen as providers. Women require approval from husbands or fathers for interventions, reflecting gender dynamics in many African societies. These norms create challenges for women in accessing essential services. The interview emphasized the importance of including gender in malaria interventions. While gender is not a primary focus, the use of the malaria matchbox allows for gender analysis at different levels. Tailoring programs for vulnerable groups and women is recognized as necessary.

Nepal

Malaria susceptibility extends beyond women, as seen in Nepal where most cases occur among males who travel to India and bring back outbreaks that disproportionately affect females and children. Seeking healthcare in Nepal incurs an opportunity cost, with income generation prioritized over health, leading to male migration for work while women and children remain in communities with limited time for medical attention. Urban and rural responses to malaria also exhibit significant disparities. The respondent reported that while health-seeking behavior is commendable in the country, malaria persists in poor and remote communities. To effectively address this issue, a gender perspective must be integrated at the policy level. In terms of socio-cultural norms, the prevalence of caste divisions, influences research practices in Nepal. Certain cultural practices like during the first menstruation for girls separate housing arrangements like cow sheds are often implemented which exposes individuals to malaria and other diseases.

Barriers and Access

In the Global Fund strategy, there is an introduction of requirement for countries to conduct a gender assessment so they understand power dynamics, gender differences, norms and roles and how they affect outcomes. This is an attempt to consider how evidence can be translated into action. Secondly, they also have a technical review panel where all grants are actually assessed by an external body, not actually by the Global Fund. There are a lot of programs that especially target pregnant women and children. There have been efforts to adapt programming to gender. However, for a transformative approach there needs to be a larger focus on gender and social norms. This would aid in lowering barriers and advancing elimination of malaria. One of the interviewees talked about innovative approaches which have been piloted, focusing on community engagement to establish trust and improve acceptance of interventions. Innovative approaches, such as community engagement,

"Barriers to primary health care, such as limited access to education, employment opportunities, decision-making power, and overall health, mirror the challenges faced in malaria programs. While malaria programs alone may not be capable of changing societal norms on a large scale, they can still contribute to making a positive impact within their specific focus areas."

The Community Intermittent Preventive Treatment in Pregnancy (ITPT) module is an example that trains trusted community members to administer interventions and promote health. This approach not only enhances trust but also helps identify pregnant women who may be unaware or hesitant to disclose their pregnancy. Implementation of the Community ITPT module in countries like Senegal and Sierra Leone has led to increased IPTp coverage, improved antenatal care attendance, and better distribution of bed nets. This community-driven approach addresses malaria prevention and maternal health comprehensively while addressing gender-related barriers to access quality services.

Strengthening Health Systems through Primary Health Care

"Expanding gender transformative programs on a larger scale is necessary, with continued focus on programs in countries like Kenya that still have work to do. Evaluating what has been done in the past and taking appropriate action in the remaining areas are key steps towards addressing gender disparities and achieving more equitable outcomes."

To foster a more comprehensive and equitable healthcare approach, it is imperative to adopt a horizontal, primary healthcare model that centers the people's health and care. This would contrast the vertical, disease-focused programming that often prioritizes funding procedures and diseases-focused strategies. In order to effectively address the people being affected by gender disparities, it is essential to place people at the center of our efforts and not more abstract conversations. While zooming in on gender, it is critical to understand it as a power construct that shapes societal norms and roles. This requires a focus on harmful attitudes and perceptions that arise from deeply entrenched practices, traditions, and stereotypes. The aim is to ultimately transform gender power relations within communities, institutions, and societies at large. Gender transformative programming should be integrated throughout all stages of local programs, encompassing planning, design and implementation, monitoring and evaluation, as well as reporting and policy making. By adopting a gender transformative approach at every stage, we aim to challenge both visible and hidden gender power relations including through norms, beliefs, and perceptions.

"Working in silos limits the potential results and hampers the effectiveness of gender-transformative interventions."

Engaging in Multi-sectoral Programming and collaborative approaches

By adopting a multisectoral strategy, a wide range of contextually relevant and well-researched ideas can be generated. This collaborative approach ensures that interventions are tailored to specific populations and needs, thereby increasing the likelihood of success. Additionally, incorporating diverse perspectives and experiences fosters a comprehensive understanding of the complex challenges surrounding gender inequality and malaria outcomes. CCMs and principal recipients should also engage non health organizations to address cultural and social norms that affect health outcomes.

Collaboration between reproductive health, gender, and malaria programs is crucial to maximize impact and overcome resource limitations. The link between maternal health and malaria prevention is well-established, necessitating the integration of clinical ANC health promotion, nutritional interventions, and the prevention and detection of concurrent diseases such as malaria, HIV, and TB. Harmonizing maternal healthcare and malaria interventions is essential, as they are interdependent and require mutual inclusion and education. Fragmentation across different ANC delivery platforms poses challenges to delivering prophylactic malaria interventions effectively. Integrated approaches are needed to efficiently use resources and provide comprehensive care to pregnant women, ensuring the well-being of both mothers and newborns.

Thus as we have observed over the course of this research project, it is imperative to draw insights from gender transformative and responsive programs implemented in the context of other diseases, such as HIV and TB and apply them to malaria programming. As one interviewee mentioned, this transfer of knowledge is crucial as it has the potential to contribute to primary healthcare advancements within the malaria field, which have not been extensively explored and addressed. By fostering collaboration among and across various disease-specific and gender-focused programs, through mechanisms such as funding and cross-cutting initiatives, we can harness synergies and share best practices across. The engagement of all aspects of gender programming, including sexual and reproductive health and maternal health, at both national and global levels is essential.

Kenya

The National Malaria program has a dedicated unit for addressing social behavior changes in communities by actively seeking feedback and understanding their perspectives. Influential figures, like religious leaders, are identified and utilized to effectively communicate and advocate for initiatives at the community level. This approach has been crucial, particularly in implementing Indoor Residual Spraying (IRS), where community leaders played a vital role in overcoming challenges. Involving community leaders has helped bridge the gap between the program and the community, enabling a more impactful voice and generating positive social and behavioral changes.

Community Health Workers

A pluralistic view of private, public, and community interventions is necessary for a comprehensive healthcare system. Collaboration among stakeholders improves access and health outcomes. Proper remuneration and benefits for community health workers (CHWs) are crucial for a transformative approach. Implementation in countries with predominantly female CHWs may pose additional challenges.

"The global health community needs to move forward and away from the notion that only '1%' of people seek care using community health workers".

Lower literacy rates among women can pose challenges in reporting and data management. Efforts are made to identify CHWs with basic writing skills, but limited education can be an obstacle. Relocation of married female CHWs may disrupt continuity of service. However, female CHWs can be advantageous for interventions, fostering trust and effectively engaging with women in the community, particularly when addressing sensitive health issues.

"What I do think is that if you do have community health workers, they need to be properly remunerated, the WHO has very clear advice on remuneration. And I think it's really important. I think the other aspect of anything about health workers, and as we said earlier on, a large number of the health workforce is women, and they need to be properly respected."

Leadership and community health workers

Gender equality in leadership is vital at all levels. Diverse representation facilitates discussions and translation of transformative solutions into programs and policies, starting from global bodies to local governments and health centers. Recognizing the crucial role that CHWs play in the battle against malaria, it becomes imperative to ensure their voices are heard and their perspectives are included in decision-making processes. It is also imperative to provide remuneration and fair wage to community health workers. The majority of these community health workers are women from poor and isolated communities, providing education to communities about malaria signs and risks, diagnosing malaria cases, and tracking the disease through integrated community case management. They are also responsible for preventing 40% of newborn and child deaths.[61] The WHO has a guideline for community health workers titled: WHO guideline on health policy and system support to optimize community health worker programmes.[62] They advise that countries should incorporate financial packages for CHW remuneration into health system planning, ensuring adequate resources are mobilized and prioritized. Non-monetary incentives should also be considered to enhance CHW program performance. Additionally, formulating safety and security assessments is crucial to ensure the well-being of CHWs.

Kenya

One of the interviewees highlighted the impact of CHWs in Kenya, They are mostly women and they are called Community Health Volunteers, because they do not receive any compensation. However, the interviewee noted that their organization have been advocating for a bill to get passed by the counties, with support from the national government, by which CHVs would start to be considered Community Health Promoters and be eligible for a stipend. It is of paramount importance that these workers are appropriately compensated, as their role in testing and treatment services have been key for Kenyan malaria elimination.

Nepal

One interviewee pointed out that CHWs in Nepal are unpaid volunteers who often lack formal education and training. The absence of adequate incentives, compounded by the demands of addressing COVID-19 and measles, negatively affects their motivation. It is important to seek their perspectives and address their concerns, particularly regarding remuneration. Specifically, female health volunteers should be compensated appropriately for their valuable contributions.

Data Collection

The Global Fund requires grants to consider and include a set of core indicators. Governments hold the data and decide how to collect it, but there is an expectation to report on the indicators within their framework. The Global Fund influences decisions on "What" to report but not necessarily on "How" to report. A respondent from Global Fund also mentioned the expectation for countries to report on some of their core indicators, countries can also have their own indicators as part of their national strategic plan and malaria response. But principal recipients and civil society organizations may have their own data collection frameworks to understand epidemiological situations and intervention effectiveness in parallel.

However, from another respondent from WHO it was noted that in certain locations, a concerning issue arises where up to 30% of a health worker's time is dedicated to collecting and reporting data for Global Fund and other global partners. This significant allocation of time towards data management translates to 30% less time available for delivering essential healthcare services, compromising the overall provision of healthcare in these settings. It was emphasized that the relevance of data lies in its usability at the local level, serving as a valuable tool for informed decision-making. By prioritizing data for local contexts, healthcare stakeholders can effectively address community-specific healthcare challenges.

Including Human Right Indicators

"***The gender of data collectors is an important consideration in community surveys, and in ensuring the collection of accurate and meaningful data."***

Prioritizing human rights in malaria programming ensures effective design for diverse community needs, regardless of identity. Adopting a human rights-based approach addresses challenges faced by marginalized groups due to discriminatory laws and policies. Active involvement of marginalized groups is crucial while preventing harm. Contextual differences exist, such as considering migration to India in Nepal where migrant workers are affected by malaria, as mentioned by an interview respondent and reports.

Further suggestions for Data Collection

Locally generated data is crucial for a context-specific healthcare approach, with a focus on triangulation and qualitative approaches. Complementing routine quantitative data with qualitative information provides a comprehensive understanding of healthcare disparities. Furthermore, the establishment of a national data health observatory that creates reliable data, rather than parallel systems for different donors, is essential. Analyzing disease-specific data within a broader dataset and adopting an integrated data system reveals underlying factors. Incorporating operational and social science research enhances knowledge and understanding of diverse contexts. Integrated data systems and a multifaceted approach enable researchers and policymakers to develop targeted interventions and improve healthcare outcomes.

Kenya

While the Kenya Malaria strategy recognizes human rights and gender indicators, few programs address human rights barriers to malaria services. Limited expertise and resources contribute to the focus on commodities and service delivery in malaria programming. Nonetheless, malaria assessments have been carried out that include a focus on gender and human rights and have been used to inform the Kenya Malaria Strategy 2019-2023. Therefore, a strong M&E strategy and informed focus can be developed in the next strategy. Gender analysis is crucial during the formulation of national strategic plans, integrating gender-related issues and recommendations. These plans guide malaria interventions and secure funding from the Global Fund. By incorporating gender considerations, countries can effectively address disparities and promote equitable approaches to malaria control.

Summary of Suggestions

Gender Norms

Including women in all planning phases, interacting with community leaders, faith healers etc.

Strengthen the capacity for Gender Analysis, for each country. Ensure the active participation of affected communities, especially women and girls, in the gender analysis process. Seek their perspectives, experiences, and insights to gain a better understanding of gender dynamics related to malaria prevention, treatment-seeking behaviors, and barriers to access and utilization of services.

Include dialogues on GBV by strengthening collaboration with civil society organisations that work on non-health aspects of gender, country offices training on GBV.

Ensure that the roles and responsibilities of individuals involved in delivering IEC campaigns are inclusive of gender considerations and incorporate gender-responsive messaging and strategies that address gender roles, norms, and inequalities in IEC campaigns.

Barriers and Access

Strengthening Primary health care and adopt a horizontal, primary healthcare model that centers the people's health and care.

Strengthening the collaboration with organisations, and reducing fragmentation between ANC and malaria programs,

Learning from HIV, AIDS programming and forming a strong collaboration within intersecting goals.
Promote funding mechanisms and cross-cutting initiatives that support collaborative approaches and multi-sectoral programming.

Regularly evaluate and monitor the effectiveness of collaborative initiatives in achieving their intended goals. This includes assessing the impact of multi-sectoral programming on gender equality, malaria outcomes, and the well-being of affected populations.

Community Health Workers

Strengthening leadership by including women in leadership roles. Ensure diverse representation and meaningful participation of women in decision-making processes related to malaria prevention.

Invest in comprehensive training and capacity-building programs for CHWs to enhance their knowledge, skills, and competencies in malaria prevention.

Taking a pluralistic view of health-workers and recognising and valuing the work of CHWs.

Involve CHWs in program planning, implementation, and evaluation to leverage their local knowledge and expertise.

Investigating the 'volunteer' work and focusing on fair renumeration, safe working practices.

Data Collection

Including human rights indicators which map themes like migration, gendered unpaid work.

Promoting use of data at local level, with gender segregated data.

Involving social sciences research, and using qualitative data

Regular use of Malaria Matchbox and other barriers assessment tools.

Including gender analysis in M&E and formulation of National Malaria Programmes.

Community and civil society representatives should have equal access to grant data and actively participate in all stages of the process to ensure community engagement in addressing malaria.

Conclusion

In conclusion, this research study has provided valuable insights into the complex relationship between gender and malaria outcomes, with a specific focus on all the ways socioeconomic and cultural factors unfold in societies to create vicious cycles of gender inequality and negative malaria outcomes. Socio-cultural norms, practices, beliefs, stereotypes, and roles interact to produce and reproduce gendered power relations which affect decision making power, health seeking behavior, and access to health services, among other aspects of life. Through a comprehensive exploration of socio-cultural norms, barriers, access to healthcare, community health work, and data, the study has illuminated the multifaceted dimensions of gender inequality and its implications for malaria programming and interventions in global health institutions.

By exploring the interplay between gender roles, barriers, and access to healthcare, the study has illuminated the broader socio-cultural factors that influence health-seeking behavior and health outcomes in relation to malaria. In light of our findings, we have provided several recommendations for future research and practice. Efforts need to be made to engage local voices, all members of the community, civil society organizations, and more stakeholders to ensure successful implementation and designs of gender-transformative interventions. We also need to examine the institutional frameworks and power dynamics within global health institutions to develop more equitable mechanisms and frameworks. It is important to acknowledge that although progress has been made by some organizations and countries, it is still insufficient and needs stronger and more sustainable solutions that can take us into a healthier and more equitable future. By addressing these recommendations, future research and interventions can strive towards achieving gender equality in malaria programs, leading to improved health outcomes and a more inclusive and equitable healthcare system. This research should serve as a stepping stone towards a more comprehensive understanding of the relationship between gender and malaria and pave the way for evidence-based, gender-transformative approaches in the fight against malaria.

Annex

Interview Questions

Introductory Questions

- How would you describe your roles at [ ]? How do you engage with either gender or malaria (depending on their role) in the work you do?

General

- How would you describe the relationship between gender barriers and primary healthcare/malaria outcomes?
- To what extent are policies in place to guide healthcare services in implementing gender-responsive measures, and do they actively monitor and evaluate the implementation process?
- How effectively has the organisation engaged communities in designing and executing communication and mobilization campaigns, and what areas could be enhanced for improvement?

Gender Roles

- In which ways would you say gender roles affect malaria outcomes?
- How do programs in Nepal see their role in trying to change societal gender norms? What are some examples of practices that have already been done?

Barriers And Access

- What is the potential for the organisation to engage further in strategies addressing gender based barriers in current programming? Could you talk a bit about the organisation's horizontal (people-centered) programming as opposed to other vertical programming?
- What is the impact of healthcare costs on the ability of specific populations to access testing and treatment services?
- In what ways has the Global Fund integrated gender-transformative programming and strategies?

Community Health Workers

- What is the current state of community health workers' conditions, particularly in terms of workplace environment, remuneration, and harassment? Is there any potential for the Global Fund to engage further with community health workers?
-

Data Collection

- Who determines the data collection processes and how healthcare systems performance is evaluated? Do the indicators encompass concerns that may vary between genders?
- What is the level of reluctance among individuals from marginalized communities to participate in data collection initiatives?

Extra

- Could you talk a little bit about multisectoral engagements and partnerships in primary healthcare/capacity building?

Conclusion Questions

- What are the existing gender-related gaps in relation to malaria outcomes? What is the potential for the organisation to engage further in gender transformative practices?

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