USAID'S MALARIA ACTION PROGRAM FOR DISTRICTS

GENDER ANALYSIS
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Gender Analysis

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Table of Contents

ACRONYMS VI

EXECUTIVE SUMMARY VIII

1. INTRODUCTION 1

2. BACKGROUND 1

2.1 COUNTRY CONTEXT 3
2.2 USAID'S MALARIA ACTION PROGRAM FOR DISTRICTS 6
2.3 STUDY DESCRIPTION 6

3. METHODOLOGY 8

3.1 ANALYTIC FRAMEWORK 8
3.1.1 PATTERNS OF ILL HEALTH 8
3.1.2 FACTORS AFFECTING ILL HEALTH 8
3.1.3 FACTORS AFFECTING RESPONSES TO ILL HEALTH 8
3.2 STUDY PROCESS 10
3.2.1 DESK REVIEW 10
3.2.2 FIELDWORK 10
3.2.3 DATA COLLECTION 11
3.2.4 DATA ANALYSIS 11
3.2.5 STUDY STRENGTHS AND LIMITATIONS 12

4. MAIN FINDINGS 13

4.1 PATTERNS OF MALARIA INFECTION, RISK, AND EXPOSURE 13
4.1.1 WOMEN'S EXPOSURE RISK 13
4.1.2 MEN'S EXPOSURE RISK 14
4.1.3 ADOLESCENTS' EXPOSURE RISK 15
4.2 MALARIA PREVENTION 15
4.2.1 PREVENTING MALARIA IN PREGNANCY 15
4.2.2 INCREASING USE OF AND ACCESS TO LLINS 22
4.3 MALARIA DIAGNOSIS AND TREATMENT 27
4.3.1 IMPLEMENTATION OF INTEGRATED COMMUNITY CASE MANAGEMENT OF MALARIA (ICCM) 27
4.3.2 MEN'S TREATMENT-SEEKING BEHAVIOR 33
4.4 STAKEHOLDER CAPACITY TO PROVIDE GENDER-RESPONSIVE MALARIA SERVICES 35
4.4.1 SERVICE PROVIDERS' CAPACITY 35
4.4.2 DISTRICT SUPERVISORS' CAPACITY 36
4.4.3 DISTRICT-LEVEL GENDER CAPACITY 36
4.4.4 NATIONAL MALARIA CONTROL PROGRAMME (NMCP) CAPACITY 37

5. CONCLUSION 39

6. RECOMMENDATIONS 41

6.1 PREVENTION 41
6.2 DIAGNOSIS AND TREATMENT 43
6.3 CAPACITY BUILDING 45

REFERENCES 47

APPENDIX A 51

APPENDIX B 81

ACRONYMS

ACT	*Artemisinin-based combination therapy*
AIDS	*Acquired Immune Deficiency Syndrome*
ANC	*Antenatal care*
CDO	*Community development officer*
DHMT	*District health management team*
FGD	*Focus group discussion*
GII	*Global Inequality Index*
HIV	*Human Immunodeficiency Virus*
HMIS	*Health management information system*
iCCM	*Integrated community case management*
IPTp	*Intermittent preventive treatment (of malaria) in pregnancy*
IPV	*Intimate partner violence*
IRS	*Indoor residual spraying*
ITN	*Insecticide-treated net*
KII	*Key informant interview*
LLIN	*Long-lasting insecticide-treated net*
M&E	*Monitoring and evaluation*
MGLSD	*Ministry of Gender, Labour, and Social Development*
MIP	*Malaria in pregnancy*
MIS	*Malaria Indicator Survey*
MoH	*Ministry of Health*
NMCP	*National Malaria Control Program*
PEPFAR	*President's Emergency Plan for AIDS Relief*
PMI	*President's Malaria Initiative*
RDT	*Rapid diagnostic test*
SBCC	*Social behavior change communication*
SP	*Sulfadoxine/pyrimethamine*
TBA	*Traditional birth attendant*
TWG	*Technical working group*

UDHS	*Uganda Demographic Health Survey*
UMIS	*Uganda Malaria Indicator Survey*
VHT	*Village health team*
WHO	*World Health Organization*
WRA	*Women of reproductive age*

EXECUTIVE SUMMARY

Gender norms, roles and relations are powerful social determinants of health risks, results, and outcomes. Inequalities between women and men result in different levels of exposure and vulnerability to disease, different responses to ill health, different health outcomes, and different consequences. This study examined the gender dynamics behind women's, men's, girls', and boys' differential exposures and responses to malaria in Uganda. It provides recommendations to improve the gender-responsiveness of USAID's Malaria Action Program for Districts (hereinafter called the "project"), a flagship activity of the President's Malaria Initiative in Uganda.

The study was composed of a desk review and four-week field mission in Uganda (January-February 2016) to collect qualitative data using semi-structured interviews with key informants at the national, district, and community levels, and focus group discussions (FGDs) with community members in six districts spread evenly across the West Nile, Central, and Mid-Western regions of Uganda. The study's framework drew from the Liverpool School of Tropical Medicine's *Guidelines for the Analysis of Gender and Health*, which is composed of three parts: patterns of ill health, factors affecting who gets ill, and factors affecting responses to ill health. The analytical framework was applied to the three objectives of the project:

1. Effective malaria prevention programs implemented in support of the National Malaria Control Strategy
2. Effective malaria diagnosis and treatment activities implemented in support of the national malaria strategy
3. Capacity of national and district health authorities to manage and sustain efficient malaria activities in focus districts built.

This report discusses the findings and recommendations from the desk review and fieldwork.

Patterns of malaria infection, risk and exposure

Women's and men's different roles in the household, community, and larger society affect their risk of exposure to malaria. Women are vulnerable to infection while fulfilling both their reproductive and productive responsibilities. Women's household work that takes place early in the morning or late in the evening puts them at higher risk during these peak biting times. Their productive and income-generating activities, including agriculture and selling goods in the marketplace, are also risk factors. Cultural practices, such as overnight prayers, are a risk for women and children. Children are vulnerable to malaria because they accompany their mothers in most of their duties.

Men are most at risk in certain occupations, such as brickmaking (when they stay onsite overnight), working as a night watchman, but also at night when they are socializing. Respondents repeatedly identified alcohol consumption and staying out late at night as a risk factor for men.

Adolescents were reported to be at risk while socializing at night, and at boarding school when bed nets are not available or properly installed.

Preventing malaria in pregnancy

A key strategy for preventing malaria in pregnancy is the provision of intermittent preventive therapy (IPTp) through antenatal care (ANC). At least three doses of IPTp are recommended

during pregnancy, but most Ugandan women get two or fewer. This study found the main reason behind low IPTp uptake was that women did not visit an ANC clinic until late in their pregnancy. Reported contributing factors include women's limited access to and control over household resources needed to cover transport or drug costs, and men's low priority on spending limited resources on health care; the loss of productivity for women to attend a health facility during the day; and poor health service quality that includes potential abuse by health workers for early or multiple pregnancies.

A significant factor that delays ANC attendance is men's reluctance to accompany their partners to the health facility despite national policies that call for mandatory male attendance at ANC visits. Men are reported to see little value in their presence, and to want to avoid mandatory HIV testing for couples. Consequently, women delay attending a health facility to either convince their partners to join them, or to avoid the judgement of health workers for the absence of their partner.

Pregnant adolescents can face a high degree of stigma and discrimination by health workers and other clinic attendees. A national law that denotes sex with a person under the age of 18 as a crime punishable by life imprisonment acts as a deterrent for adolescent girls, either by their own volition to protect the father of the child, or by pressure from parents and male partners who want to conceal the pregnancy.

Increasing use of long-lasting insecticide-treated nets

The access and use of long-lasting insecticide-treated nets (LLINs) to prevent malaria are dictated by gender norms and practices, including sleeping patterns, household decision-making power imbalances, and gendered risk perceptions. While study respondents reported that women are primarily responsible for ensuring the use of LLINs, men have ultimate decision-making authority as the household head. Reported sleeping patterns include men, women, and the youngest child sharing one bed, often the only one in the household, making men's preferences for net use a critical factor in women's and children's protection. However, little research is available on male LLIN use. Respondents reported men were less likely to perceive themselves at risk of infection, and therefore less likely to take protective measures such as sleeping under a LLIN.

Disagreements between couples can result in women sleeping on mats with their children, and without the protection of a net. Using LLINs with sleeping mats was reported to cause the nets to tear, reducing their effectiveness. Net repair and maintenance were reported to be the responsibility of women, but the financial resources needed to replace or repair LLINs are controlled by men. Most household LLINs are acquired as a result of government mass distribution campaigns, as opposed to demand from households themselves, suggesting that the replacement of damaged nets would not be a household priority.

Integrated community case management of malaria

Integrated community case management of malaria (iCCM) provides integrated diagnosis and treatment of malaria, pneumonia, and diarrhea in children under five through community health workers. Village Health Teams (VHTs) deliver iCCM to households in select districts in Uganda. Female focus group discussion participants expressed favorable views of the role of VHTs in treating uncomplicated cases of malaria, and in referring complicated cases to health facilities. Because VHTs come from the communities they serve, they have the potential to overcome gender-related barriers to malaria diagnosis and treatment in children—especially women's

limited access to and control over resources needed for timely treatment—by reducing costs and time away to attend a health facility. However, VHTs and community members report drug stock-outs, which may inhibit the effectiveness of their role and increase the likelihood that women will turn to herbal medicines to treat malaria in children. Beliefs in witchcraft and supernatural causes of severe malaria symptoms, including coma and convulsions, are common among women and delay timely treatment.

Similar to LLIN use, women were reported to have authority over decisions related to treatment-seeking. However, their power is severely limited by their ability to access and control the resources necessary to obtain treatment. Men, as the head of household, are required to be consulted on any decisions involving the use of household resources. Disagreements between men and women concerning the use of household resources was identified as a primary cause of gender-based violence in households. The practice of polygamy, present in all study districts, can exacerbate disputes and lead to competition between families for scarce resources. Men's inability to financially provide for multiple families places additional pressure on women to earn more income to meet family needs.

Gender-related capacity building

Capacity to undertake gender-responsive malaria programming is limited at the national and district levels. Gender equality training for district-level and health facility respondents was reported in only a few circumstances. The integration of gender issues into malaria programming is limited to the targeting of women for prevention and treatment education and services. No districts reported gender-specific approaches to social and behavior change communication or community outreach. Data collection and analysis is limited to the collection of sex-disaggregated data as part of routine data collection. Linkages between the Ministry of Gender, Labour and Social Development and the Ministry of Health were not reported in relation to malaria programming at the national or district levels.

Recommendations

1. Increase women's awareness of the availability and value of IPTp as an effective method for preventing malaria in pregnancy, and the importance of regular ANC clinic attendance.
2. Increase men's awareness of and support for the benefits of regular ANC clinic attendance.
3. Encourage the Ministry of Health to include a package of health services for men as part of ANC programs.
4. Improve the quality of ANC/IPTp services provided in public health facilities by training health workers on interpersonal skills and malaria in pregnancy (MIP) guidelines, improving health worker availability, and reducing sulfadoxine/pyrimethamine (SP)/Fansidar stock-outs.
5. Advocate for a review of health sector policies mandating male attendance at ANC clinic visits and mandatory HIV testing.
6. Collaborate with women's economic empowerment projects in project districts to increase women's and girls' access to and control over resources for health.

7. Increase men's and women's awareness of proper insecticide-treated net (ITN) usage, maintenance, and safety.
8. Increase men's awareness of and support for ITN use by all household members.
9. Increase ITN coverage and use.
10. Conduct further research into men's knowledge, attitudes, and practices regarding ITN use.
11. Continue the scale-up of iCCM services as an effective method for overcoming gender-related barriers to malaria prevention and treatment services for children under five.
12. Increase men's awareness of and support for early malaria diagnosis and treatment for all family members, including themselves and adolescents.
13. Develop gender- and age-specific behavior change communication strategies to reduce reliance on traditional medicines and the practice of self-medication, and to encourage completion of drug regimens.
14. Explore opportunities to support village health funds to increase the availability of resources at the community level.
15. Build on lessons from the HIV sector to address gender inequalities in malaria prevention, treatment, and control.
16. Conduct gender training with health service providers, district supervisors, and district health management teams (DHMTs) to improve capacities to deliver gender-responsive malaria services.
17. Leverage the expertise of district community development officers (CDOs) to strengthen DMHT gender capacity and gender integration in district-level malaria programs.
18. Strengthen district capacity to monitor service quality.
19. Support relationship building between the Ministry of Health (MoH) gender focal point and National Malaria Control Program (NMCP) team.
20. Build NMCP and DHMT capacities to conduct gender-responsive research and data analysis.
21. Strengthen project staff's capacity to design, implement, monitor and evaluate gender-responsive malaria programming.

1. INTRODUCTION

USAID's Malaria Action Program for Districts aims to improve the health status of the Ugandan population by reducing childhood and maternal morbidity and mortality due to malaria**.** The project supports the Government of Uganda to reduce deaths from malaria among the general population, especially children under five years of age. It works with the National Malaria Control Program at the Ministry of Health and the district health management teams in 43 districts in Uganda to implement results-oriented and field-tested strategies to contribute to the reduction of malaria and its social and economic effects in about a third of the country, reaching around 13 million Ugandans.

As part of USAID's commitment to gender equality and women's empowerment outcomes in programming, the project conducted a gender analysis to examine how gender roles and responsibilities differentially affect malaria prevention and treatment for men, women and children in Uganda. Findings and recommendations from the study will be used to integrate gender equality activities and results throughout the project to ensure the project addresses women's and men's differential vulnerabilities to infection, and supports their respective abilities to prevent infection and effectively respond to ill-health.

The study was composed of a desk review and four-week field mission to Uganda (January-February 2016) to collect qualitative data in the West Nile, Central, and Mid-Western regions. After describing the context in which the study took place and the study methodology, this report discusses key findings, broadly categorized by patterns of malaria infection, risk, and exposure; malaria prevention; malaria diagnosis and treatment; and capacity building among key local stakeholders. It then draws conclusions and provides recommendations to improve the gender-responsiveness of USAID's Malaria Action Program for districts in Uganda.

2. BACKGROUND

Gender norms, roles and relations are powerful social determinants of health risks, results, and outcomes. Inequalities between women and men result in different levels of exposure and vulnerability to disease, different responses to ill health, different health outcomes, and different consequences.[1] The relative power of women and men in a household dictates whose health needs are met, and the extent to which they can exercise control over their own health and well-being.

[1] WGEKN. Unequal, Unfair, Ineffective and Inefficient Gender Equity in Health: Why it exists and how we can change it. Final Report to the WHO Commission on Social Determinants of Health. Geneva: World Health Organization; 2007.

Research shows that when women are empowered, their health and the health of their children improve. Empowered women are more likely to access health services and have control over health resources. Their children receive better care at home and are more likely to receive health care when they need it.[2,3,4,5] Yet in many societies women have less access to land, wealth, and property compared to men, which limits their decision-making power in the household, and their control over the financial resources necessary to improve their health and that of their families. Gender norms prevent their contribution from being recognized and limit their bargaining power. Where men are not fulfilling the role of household head, either through absence or negligence, women take on the role of sole breadwinner, but often for lower pay if they choose salaried employment.

> "**Gender equality** concerns women and men, and it involves working with men and boys, women and girls to bring about changes in attitudes, behaviors, roles and responsibilities at home, in the workplace, and in the community. Genuine equality means more than parity in numbers or laws on the books; it means expanding freedoms and improving overall quality of life so that equality is achieved without sacrificing gains for males or females."
>
> Source: USAID, 2012.

Gender inequalities can lead to different levels of exposure and vulnerability to disease, including malaria. For example, due to gender divisions of labor, women spend considerably more time in the home than men. This places them at increased risk of contracting malaria because mosquito feeding and resting patterns favor indoor environments.[6,7] Women's predominant role in agriculture requires them to begin work in the early morning, a high risk period for mosquito exposure and malaria infection.

Gender-related norms, behaviors, and practices of men and women influence their responses to ill health. Men's poor treatment-seeking behavior, which is often grounded in cultural norms that equate illness with weakness, causes them to delay seeking timely treatment for

[2] Cleland JG, van Ginneken JK. Maternal education and child survival in developing countries: The search for pathways of influence. *Social Science and Medicine* 1988; **27**(12): 1357-68.

[3] Caldwell JC. Routes to low mortality in poor countries. *Population & Development Review* 1986; **12**(2): 171-220.

[4] Kabeer N. Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and Change* 1999; **30**(3): 435-64.

[5] The Partnership for Maternal N, and Child Health (PMNCH), Partners in Population Development (PPD). Promoting women's empowerment for better health for women and children. Strategy Brief for the Inter Ministerial Conference on "South-South Cooperation in Post ICDP and MDGs", Beijing, China 22-23 October, 2013. Geneva, Switzerland: The Partnership for Maternal, Newborn, and Child Health; 2013.

[6] Woldu DO, Haile ZT. Gender Roles and Perceptions of Malaria Risk in Agricultural Communities of Mwea Division in Central Kenya. *Women & Health* 2015; **55**(2): 227-43.

[7] Roll Back Malaria. Gender and Malaria. Roll Back Malaria; September 2015.

malaria.[8,9] Gender norms place the burden of care for ill family members on women, while at the same time limiting their access to and control over resources needed to fulfil this responsibility.[10,11] Women's heavy work burden in the reproductive and productive domains can prevent them from seeking care because it takes time away from their many other responsibilities.

Understanding the gender dynamics behind the different ways women, men, girls, and boys are vulnerable to malaria, and how they respond to illness, provides valuable information for malaria prevention and control.

2.1 COUNTRY CONTEXT

The Republic of Uganda is located in the East African region of sub-Saharan Africa. Just over half (51 percent) of the total population of 34.6 million is female, and youth (10 to 24 years) constitute 35 percent of the population.[12]

Malaria is the leading cause of morbidity and mortality in Uganda.[13] Despite a moderate population size, Uganda has some of the highest estimates of malaria-related cases and deaths in sub-Saharan Africa.[14] Malaria is estimated to account for 30-50 percent of health facility outpatient visits, 15-20 percent of hospital admissions, and 20 percent of hospital deaths.[15] Malaria transmission is endemic and perennial in 90-95 percent of the country.[16] The most common malaria vectors are *Anopheles gambiae s.l.* and *Anopheles funestus*, both of which feed and rest indoors, with peak biting times in the late evening and early morning. Insecticide-treated nets (ITNs) and indoor residual spraying (IRS) are the primary vector control strategies in this context.[17]

[8] Mutua EN, Bukachi SA, Bett BK, Estambale BA, Nyamongo IK. Lay knowledge and management of malaria in Baringo county, Kenya. *Malaria Journal* 2016; **15**.

[9] Montgomery CM, Mwengee W, Kong'ong'o M, Pool R. 'To help them is to educate them': power and pedagogy in the prevention and treatment of malaria in Tanzania. *Tropical Medicine & International Health* 2006; **11**(11): 1661-9.

[10] Mutua et al., Lay knowledge and management of malaria in baringo county, Kenya, 15.

[11] Ewing VL, Tolhurst R, Kapinda A, Richards E, Terlouw DJ, Lalloo DG. Increasing understanding of the relationship between geographic access and gendered decision-making power for treatment-seeking for febrile children in the Chikwawa district of Malawi. *Malaria Journal* 2016; **15**.

[12] Uganda Bureau of Statistics (UBOS). National Population and Housing Census 2014. Kampala, Uganda: UBOS; 2014.

[13] National Malaria Control Program (NMCP). Uganda Malaria Reduction Strategic Plan 2014-2020. Kampala, Uganda; 2014.

[14] WHO. World Malaria Report 2016. Geneva: World Health Organization; 2016.

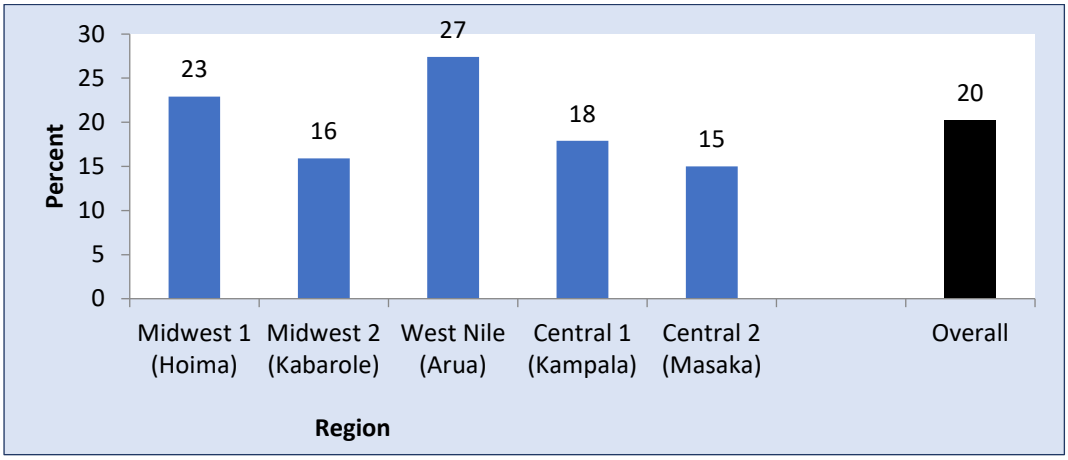
[15] NMCP, Uganda Malaria Reduction Strategic Plan, 2014.

[16] NMCP, Uganda Malaria Reduction Strategic Plan, 2014.

[17] NMCP, Uganda Malaria Reduction Strategic Plan, 2014.

The national malaria prevalence is 20.5 percent, with significant variation among regions, ranging from 15 percent in Central 2 region to 27 percent in West Nile region (Chart 1).[18] The malaria prevalence for women and men is 21.2 and 19.8 percent, respectively.[19]

Chart 1. Malaria prevalence by region



Source: UBOS, 2014.

Uganda has made significant progress on malaria indicators in the last decade (Table 1). The percentage of households with at least one insecticide-treated net (ITN) increased from 16 to 78 percent between 2006 and 2016.[20] Over the same period, the proportion of pregnant women and children under five sleeping under an ITN grew from 10 percent to 64 percent and 62 percent, respectively.[21]

Table 1. Progress on malaria indicators to date

Indicator	2006 UDHS	2009 UMIS	2011 UDHS	2014-15 UMIS	2016 UDHS
Percentage of households that own at least one ITN	16%	47%	60%	90%	78%
Proportion of children under five years of age sleeping under an ITN the previous night	10%	33%	43%	74%	62%
Proportion of pregnant women sleeping under an ITN the previous night	10%	44%	47%	75%	64%
Proportion of pregnant women who received at least two doses of IPTp, at least one during ANC	16%	32%	25%	45%	45%
Prevalence of parasitemia (by microscopy) in children 0-59 months	NA	42%	NA	19%	NA

[18] Uganda Bureau of Statistics (UBOS), ICF International. Uganda Malaria Indicator Survey 2014-15. Kampala, Uganda, and Rockville, Maryland, USA: UBOS and ICF International; 2015.

[19] Uganda Bureau of Statistics (UBOS), Uganda Malaria Indicator Survey, 2015.

[20] Uganda Bureau of Statistics (UBOS), ICF. Uganda Demographic and Health Survey 2016: Key Indicators Report. Kampala, Uganda: UBOS, and Rockville Maryland: UBOS and ICF; 2017.

[21] Uganda Bureau of Statistics (UBOS), Uganda Demographic and Health Survey 2016, 2017.

Prevalence of severe anemia in children 6-59 months (Hb<8 g/dL)	NA	10%	5%	5%	6%

ITN = Insecticide-treated net
IPTp = Intermittent preventive treatment (of malaria) in pregnancy
ANC = Antenatal care
NA = Not applicable

Source: UBOS, 2014, 2016.

However, challenges remain. Uganda has one of the highest global fertility rates (6.2 births per woman), making preventing malaria in pregnancy (MIP) a priority.[22] While the percentage of women receiving antenatal care from a skilled provider for their last birth in the last five years is high (95 percent), only 45 percent of pregnant women received two or more doses (out of the recommended three) of intermittent preventive therapy (IPTp) to prevent malaria in pregnancy. The population is also very young, with 51 percent below the age of 15, yet just 62 percent for children aged 5 to 14 years sleep under an ITN. Only 62 percent of households meet the definition of universal ITN coverage.[23,24]

> "**Female empowerment** is achieved when women and girls acquire the power to act freely, exercise their rights, and fulfill their potential as full and equal members of society. While empowerment often comes from within, [it is] cultures, societies, and institutions [that can] create conditions that facilitate or undermine the possibilities for empowerment."
>
> Source: USAID, 2012.

In 2015, Uganda's Gender Inequality Index (GII)[25] value was 0.522, ranking it 121 out of 159 countries worldwide, and reflecting significant inequalities between women and men in the three realms of decision-making, bargaining power, and access to and control over resources.[26] Only 38 percent of currently married women participate in all three pertaining to their own health care, major household purchases, and visits to their family or relatives.[27] Approximately 40 percent of women own a house and/or land, but more often than not it is jointly held with their husband. Out of currently married women who do earn an income, 53 percent report that they can mainly make independent decisions on how to spend their earnings. Thirteen percent of women have never been to school, compared to four percent of men; thus, women are less likely to participate

[22] Uganda Bureau of Statistics (UBOS), National Population and Housing Census, 2014.

[23] Defined as at least one net for every two persons.

[24] UBOS, Uganda Malaria Indicator Survey, 2015.

[25] The Gender Inequality Index is calculated annually as part of the United Nations Development Programme's *Human Development Report*. The GII reflects gender-based inequalities in three dimensions: reproductive health, empowerment, and economic activity. It can be interpreted as the loss in human development due to inequality between female and male achievements in the three GII dimensions.

[26] Uganda Bureau of Statistics, ICF International. Uganda Demographic and Health Survey 2011. Kampala, Uganda, and Calverton, Maryland: UBOS, and ICF International; 2012.

[27] UBOS, Uganda Demographic and Health Survey, 2012.

in formal employment and more likely to earn less than their male counterparts. Fifty-eight percent of women believe that wife beating is justified under certain conditions.[28]

2.2 USAID'S MALARIA ACTION PROGRAM FOR DISTRICTS

USAID's Malaria Action Program for Districts (hereinafter called the "project") is leading support to the Government of Uganda's *National Malaria Reduction Strategic Plan*, working in partnership with the National Malaria Control Program at the Ministry of Health (MoH) and district health management teams (DHMTs) in 43 focus districts. The project supports the implementation of results-driven, field-tested strategies to foster an enabling environment to further consolidate gains to reduce the prevalence of malaria in Uganda. The project has three objectives:

1. Implement effective malaria prevention programs in support of the National Malaria Control Strategy
2. Implement effective malaria diagnosis and treatment activities in support of the National Malaria Strategy
3. Build capacity of National Malaria Control Program (NMCP) and DHMTs to manage and sustain efficient malaria activities in focus districts

2.3 STUDY DESCRIPTION

From January 6 to February 28, 2017, the project conducted a gender analysis to identify gender-related gaps, challenges, and constraints that may hinder project goals and activities, and to identify the possible differential effects of the project on women, men, boys and girls, with an emphasis on male and female adolescents aged 10-19 years.

The gender analysis sought to answer the following research questions:[29]

1. How does the relative status of women and men[30] affect their differential access to/control over assets, resources, opportunities, and services related to the project, and broader issues concerning malaria prevention, diagnosis, and treatment?
2. How do men's and women's respective roles, responsibilities, and time use prevent or facilitate participation in the project, and malaria prevention, diagnosis, and treatment activities?
3. Do relevant laws, policies, and institutional practices contain implicit or explicit gender biases that may affect men's and women's ability to participate in the project, assume leadership roles, and access affordable and high quality malaria prevention, diagnosis, and treatment services?
4. How do existing gender norms and cultural beliefs affect malaria prevention, diagnosis, and treatment-related behaviors of women and men?
5. How do existing patterns of power and decision-making influence the ability of women and men to decide, influence, and exercise control over material, human, intellectual, and financial resources in the family, community, and country related to malaria prevention, diagnosis, and treatment?

[28] UBOS, Uganda Demographic and Health Survey, 2012.

[29] The research questions were informed by the gender domains outlined in USAID's ADS Chapter 205: "Integrating Gender Equality and Female Empowerment in USAID's Program Cycle."

[30] All references to women and men in this document include boys (0-10 years), girls (0-10 years), and adolescents (10-19 years), as appropriate.

6. What are the potential impacts of the project on women and men, including unintended or negative consequences?

The analysis was conducted in six Ugandan districts covering all three regions where the project is active (Central, Mid-West, and West Nile). In each of the study regions, two districts were selected, one urban and one rural. A purposive sampling strategy was used to ensure all regions targeted by the project were included, and that urban and rural perspectives were captured. The total population for study districts ranged between 139,012 in Moyo to 572,986 in Hoima (Table 2).[31]

Table 2. Gender analysis study districts by total population and proportion of female population

Region	Districts	Urban / Rural	Total population	Female population (%)
West Nile	Moyo	Urban	139,012	50.1
	Yumbe	Rural	484,822	51.9
Central	Masaka	Urban	297,007	49.5
	Bukomansimbi	Rural	151,413	50.1
Mid-Western	Kabarole	Urban	469,236	50.0
	Hoima	Rural	572,986	49.0

Source: UBOS, 2014.

[31] Uganda Bureau of Statistics (UBOS), National Population and Housing Census, 2014.

3. METHODOLOGY

3.1 ANALYTIC FRAMEWORK

The analytic framework was adapted from the Liverpool School of Tropical Medicine's *Guidelines for the Analysis of Gender and Health*.[32] It is composed of three parts:

I. Patterns of ill health
II. Factors affecting who gets ill
III. Factors affecting responses to ill health

3.1.1 Patterns of ill health

A review of the gender-related patterns of malaria infection in Uganda involves an examination of how men's and women's living and working conditions affect their vulnerability to malaria infection. It identifies the gender patterns regarding who gets ill, where, and when. This first understanding of malaria morbidity and mortality is a precursor to an analysis of why certain groups of people are more vulnerable to malaria infection, and to understanding different groups' decision-making related to treatment-seeking and other responses to ill health.

3.1.2 Factors affecting ill health

In part two of the framework, the social, cultural, and economic factors affecting women's and men's differential vulnerability to malaria infection are examined. Factors can be assessed at the household/community, district, and national levels, as appropriate.

3.1.3 Factors affecting responses to ill health

The final part of the framework examines the gender-related factors affecting women's and men's differential responses to malaria infection, including their ability to access prevention, diagnosis and treatment services.

Table 3 presents a summary of the matrix of factors affecting women's and men' differential vulnerability and responses to malaria infection that was used to develop the gender analysis research methodology and tools.

Table 3. Matrix of factors affecting women's and men' differential vulnerability and responses to malaria infection

Factors	Vulnerability to malaria infection	Responses to malaria infection
Environment	How does the **environment** (living/working conditions, geography/climate, socio-economic conditions) influence vulnerability to infection?	--
Roles, activities, time use	What do men and women do? Are there health risks associated with specific activities?	Do women's and men's roles and responsibilities affect their willingness/ability to admit to being ill, and to seek treatment?

[32] Liverpool School of Tropical Medicine Gender and Health Group. Guidelines for the Analysis of Gender and Health. Liverpool School of Tropical Medicine.

	Are there health risks associated with excessive burdens of work? Are there health risks associated with lack of work?	
Bargaining position and decision-making power	Are women and men able and willing to protect their own health? Are there significant gender differences in women's and men's ability to protect their own health? To what extent can women and men make independent decisions regarding their health and its protection? Are there gender differences in their ability to negotiate with others about their health protection?	Does women's and men's bargaining power affect their willingness/ability to admit to being ill and to seek treatment?
Access to and control over resources	Are there differences in women's and men's access to or control over resources that affect their ability to protect their own health?	Do women's and men's access to and control over resources affect their willingness/ability to admit to being ill, and to seek treatment?
Gender norms	Are there accepted cultural norms or practices that affect women's and men's health, or women's and men's ability to protect their health? What role does gender-based violence play in women's ability to protect their own health and that of their children?[33]	How do local perceptions of illness, and local norms concerning illness and treatment, affect women's and men's willingness/ability to admit to being ill and to seek treatment? What role does gender-based violence play in women's ability to seek treatment for themselves or their children?
Laws, rules, and institutional practices	How do existing laws, rules, or institutional practices influence women and men's differential vulnerability to infection?	How do existing laws, rules, or institutional practices influence women and men's ability to access prevention, diagnosis, and treatment services?

[33]Gender-based violence includes violence in close relationships, sexual violence (including rape, sexual assault, harassment in public and private places), human trafficking (including slavery and sexual exploitation), and harmful practices (including child marriage, female genital mutilation, and assaults in the name of "honor").

3.2 STUDY PROCESS

The project engaged a three-person research team to undertake the analysis, composed of a Team Leader, Alison Y. Riddle, the project's Gender and Youth Specialist, Emmanuel Ssegawa, and a Research Specialist, Sharon Ahumuza. Lis Meyers, Senior Gender Specialist at Banyan Global, provided management and technical support to the team, and Creighton Camera, Project Coordinator at Banyan Global, provided administrative support. The USAID/Uganda Gender Advisor and the President's Malaria Initiative (PMI) representatives in Uganda provided input to the research methodology and work plan. Local interpreters (male and female) were engaged in each district to conduct interviews in the applicable local language as needed. A complete list of respondents is provided in Appendix B.

The study included a review of quantitative data and peer-reviewed literature in the form of a desk review, followed by a qualitative research involving a series of semi-structured key informant interviews (KIIs) and focus group discussions (FGDs) with community members in a total of six districts spread evenly across the West Nile, Central, and Mid-Western regions of Uganda. The study work plan is included in Appendix A.

3.2.1 Desk review

A desk review was undertaken to develop an initial picture of the gender-related barriers to improved malaria prevention, diagnosis, treatment, and control in Uganda. It examined:

- the main patterns of malaria infection and control in Uganda by age and sex;
- the factors associated with gender-related vulnerability to infection and barriers to prevention, diagnosis, and treatment services;
- existing Ugandan policies and frameworks related to gender and malaria; and
- USAID's, other donors', multilateral organizations', and other national and international implementing partners' approaches to malaria and gender in Uganda.

Quantitative data concerning the patterns of malaria infection and control in Uganda by sex and age were summarized from existing resources, including the *2014-15 Uganda Malaria Indicator Survey*, the *2011 Uganda Demographic and Health Survey,* and the *Uganda Demographic and Health Indicator Survey 2016: Key Indicators Report.*[34,35,36]

A targeted literature search in Medline (OVID interface) and Web of Science was conducted to identify peer-reviewed articles regarding the gender dimensions of malaria prevention, diagnosis, treatment, and control, with an emphasis on studies conducted in East Africa. Search terms included gender, gender equality, women, women's empowerment, gender-based violence, girls, adolescent girls, teenage girls, malaria, fever, intermittent preventive therapy (in pregnancy), insecticide-treated nets, Uganda, East Africa, sub-Saharan Africa.

3.2.2 Fieldwork

A four-week field mission was undertaken from January 13 to February 16, 2017. It consisted of visits to three regions (West Nile, Mid-Western, and Central), with visits to two districts

[34] UBOS, Uganda Malaria Indicator Survey, 2015.

[35] UBOS, Uganda Demographic and Health Survey, 2017.

[36] UBOS, Uganda Demographic and Health Survey, 2012.

per region (Moyo, Yumbe, Masaka, Bukomansimbi, Kabarole, and Hoima), in addition to Kampala. KIIs were conducted with project staff and implementing partners, and with national, district, sub-county and village stakeholders including the Ministry of Health, the Ministry of Gender, Labour, and Social Development, multilateral organizations, district health management teams (DHMTs), district political leaders, local council members, religious/cultural leaders, community development officers (CDOs), health facility management committees, health workers, and village health teams (VHTs). The interview guide is attached as part of the work plan in Appendix A.

Four focus groups discussions with community members were held in each district – one each with men (18+ years), women (18+ years), female adolescents (10-17 years), and male adolescents (10-17 years). Participants were mobilized through the project's regional offices' existing relationships with district and sub-county representatives. Efforts were made to mobilize a cross-section of the community to maximize representation from different groups, including people living with disabilities and other vulnerable groups, people of varied ages and marital statuses, and members of female-headed households. The sessions employed adapted versions of the Harvard Analytical Framework[37] tools to develop (1) an activity profile, and (2) an access and control profile. The purpose of the tools was to identify the different roles, responsibilities, and time use of women, men, and adolescent boys and girls, with a focus on tasks related to malaria prevention and treatment, and to identify who has access to and control over the resources needed for and produced by these activities. The adapted tools are included in Appendix A.

3.2.3 Data collection

An individual record for each KII and FGD was created which included the date, time, and location of the meeting, and the names, titles, affiliations, age group, and sex of participants. For each KII and FGD, one team member was responsible for interviewing/facilitation, while another was responsible for note-taking. To overcome language barriers, local interpreters were employed in the West Nile and Midwest regions for FGDs and KIIs, while research team members (with the exception of the team leader) were fluent in the languages spoken in central Uganda. Interviewers/facilitators were expected to also take notes on key discussion points. Due to the impracticality of using computers in the field, notetaking was done by hand, and all note-takers were briefed on expected note-taking technique. Informed verbal consent was obtained from all interviewees and focus group participants before data collection began.

3.2.4 Data analysis

The data collectors prepared detailed, typed summaries for all KII/FGDs. The team leader reviewed all KII and FGD records to identify common themes and patterns, as well as any deviations, per the factors described in the analytic framework (Section 2.1). The remaining team members provided additional input on common themes, patterns, and outliers, identified illustrative examples and case studies, and identified program opportunities, constraints, and recommendations.

[37] The Harvard Analytical Framework is a conceptual framework for gender analysis and planning. The framework consists of a matrix for collecting data at the household and community level. It has four components: (1) an activity profile to identify "who does what," (2) an access and control profile that identifies the resources used to carry out the activities identified, (3) the analysis of influencing factors, which charts factors that influence gender differences in the above profiles, and (4) the project cycle analysis, which examines a project or intervention in light of gender-disaggregated information.21.

3.2.5 Study strengths and limitations

Fieldwork was conducted over a four-week period and included 47 KIIs with 211 participants (123 males and 88 females) and 28 FGDs with 302 participants (154 males and 148 females). The research team worked closely with the project's regional staff and district health authorities to identify and interview as many key informants as possible, and to mobilize a cross-section of community members to participate in FGDs. Standardized interview guides and note-taking techniques helped to ensure the implementation of consistent protocols. The research team surmised that data saturation was reached by the beginning of the third week of field work, lending confidence to the validity of the study's findings. Findings were also highly consistent across districts, including between urban and rural populations, and supported by desk review findings.

Despite the research team's best efforts, the team faced challenges in securing interviews with some key informants, including the NMCP Program Manager. However, an interview was conducted with other members of the NCMP team. Also, obtaining participation from a cross-section of community members for FGDs was difficult, including the elderly and people living with disabilities, as some of the discussions were often held at health facilities which involved travel for some participants. Finally, data extraction and analysis were conducted without the assistance of analytical software, though the consistency of the research findings gives the team confidence in the conclusions reached.

4. MAIN FINDINGS

This section presents the common themes identified across districts. There was considerable consistency in findings across regions. Any regional variations and unique observations are highlighted in the text, as appropriate.

4.1 PATTERNS OF MALARIA INFECTION, RISK, AND EXPOSURE

Available evidence suggests that given equal exposure, adult men and women are equally biologically vulnerable to malaria infection, except for pregnant women and adolescent girls who are at greater risk of severe malaria in most endemic areas.[38] However, women and men experience differential exposure to malaria due to gender norms and behavioral patterns. Men often face the risk of exposure through their occupations, such as fishing, mining, forestry, or agriculture, when these activities are conducted during peak biting times. Women face many of these same risks given their extensive roles in agriculture, fishing, and other productive activities, in addition to their exposure through the conduct of reproductive and household responsibilities, including preparing evening meals, and gathering water and firewood in the early morning hours.[39] Varying modes of dress can also differentially expose women and men to malaria, with those wearing less clothing (e.g., men going shirtless, or minimal dress for female sex workers) more vulnerable.[40]

In Uganda, the **most common malaria vectors** are *Anopheles gambiae s.l.* and *Anopheles funestus*, both of which feed and rest indoors, with peak biting times in the late evening and early morning.

Source: MoH, 2014.

In Uganda, the most common malaria vectors are *Anopheles gambiae s.l.* and *Anopheles funestus*, both of which feed and rest indoors, with peak biting times in the late evening and early morning. Thus, activities where women, men, and adolescents are indoors but not protected by an ITN in the late evenings and early mornings place them at the greatest risk of infection. However, many respondents, including health service providers and district health authorities, also pointed to outdoor activities as an exposure risk (see below).

4.1.1 Women's exposure risk

The national prevalence of malaria in women and men aged 15-49 years is 21 percent and 19 percent, respectively.[41] Despite the comparable infection rates, district health authorities consistently identified women as more at risk of infection compared to men due to their dual burden of reproductive and productive responsibilities. The Yumbe DHMT identified women staying up late to prepare meals, often outdoors or in a structure separate from the main house, as a significant exposure risk. In Moyo district, health workers identified women getting up early to search for water in the dry season as a reason for increased exposure. Health workers and DHMT members reported higher exposure risk for women selling food in

[38] World Health Organization, Roll Back Malaria Partnership. Gender, Health, and Malaria. Geneva: WHO; 2007.

[39] Kvinnoforum, Roll Back Malaria Partnership. A Guide to Malaria and Gender Resources. Stockholm, Sweden: Kvinnoforum.

[40] United Nations Development Programme (UNDP). Discussion Paper on Gender and Malaria. UNDP; 2015.

[41] UBOS, Uganda Malaria Indicator Survey, 2015.

markets late into the night in Masaka and Bukomansimbi districts. Concerns about workplace exposure of health workers (mostly women) working the nightshift, and maternity ward patients and their families (as many in-patient wards lack ITNs) were reported in Kabarole, Masaka, and Hoima districts. The Masaka DHMT reported sex workers' revealing clothing as a reason for increased exposure in women. The Masaka district community development officer (CDO) reported breastfeeding at night as a potential risk factor as it may be conducted outside the protection of a net. Health workers in Hoima reported women staying overnight in makeshift shelters in agricultural fields during the growing season, most often without an ITN, as a risk factor. Overnight prayers as a risk factor for women and children (including adolescents) was reported in Bukomansimbi, Kabarole, and Hoima districts. Women were reported to attend overnight prayers more than men, and to often bring their children along, especially those who are breastfeeding.

Several respondents also identified women's heavy work burden as a risk factor for children's increased exposure to malaria. DHMT respondents in Moyo and Yumbe districts reported that children are at a greater risk of exposure because they typically accompany their mothers in their duties at home and in the marketplace. For example, young children often accompany their mothers when preparing evening meals, and may fall asleep in the kitchen. In Yumbe district, children accompany their mothers when they travel to work in agricultural fields, including overnight stays in makeshift shelters. Also, because women are so busy working late into the night, children often go to sleep unattended and without the protection of a mosquito net.

4.1.2 Men's exposure risk

Respondents identified men's greatest risk factor as drinking and socializing late into the night. DHMTs, local leaders, and female community members often cited alcohol as a problem that increased men's exposure to malaria. Many respondents reported that men who come home drunk often do not ensure a mosquito net is in place for their protection. This also places women and young children at increased risk as they share a bed.

> *"Men come back late and open the bed net while drunk."*
>
> *~ DHMT members, Kabarole district*

> *"Some men delay in bars and mosquitoes bite them, we think that they are drunk. If one gets drunk, he is removed from bars and put on the verandah to sleep."*
>
> *~ Local council members, Masaka district (Nyendo Mukudde)*

However, male FGD participants did not cite alcohol or socializing as a risk factor for themselves. The research team was unable to find any other studies that identified alcohol consumption as a significant risk factor for malaria infection in men.

Both fieldwork and desk review findings confirm that working conditions are another commonly identified risk factor for men, including work that is conducted at night, such as working as watchmen, or work that requires staying in makeshift shelters overnight, such as agriculture, gardening, and fishing.[42,43] Brick-making was identified as a risk factor in Hoima and Bukomansimbi districts because of the high prevalence of standing water, which creates

[42] Kvinnoforum, A Guide to Malaria and Gender Resources. Stockholm.

[43] UNDP, Discussion Paper on Gender and Malaria, 2015.

an ideal mosquito breeding ground. A Kenyan study found that the most abundant habitat type containing *Anopheles* larvae was brick-making pits.[44] The positioning of such pits near homes, or men staying overnight at work sites, increases their exposure risk.

4.1.3 Adolescents' exposure risk

There are few studies of the risk factors and burden of malaria in adolescents.[45] Respondents in our study identified adolescents' socializing practices as a key risk factor, especially for boys.

> *"When you see how our youth live, they are engaged in taking marijuana/cannabis and can be exposed to mosquito bites. Also, we have a lot of partying at night when mosquitoes are many and people tend to stay outside for a long time. This time people who like football watch at night and they get exposed there."*
>
> *~ Health workers, Moyo district*

> *"Adolescent boys spend a lot of time in video halls and they get bites here. There are adolescents who spend time out of home. The adolescents from rural areas are out late on market days when they get permission to get out of home."*
>
> *~ District political leaders, Yumbe district*

In Moyo district, a local council member said that girls are prioritized for ITNs over boys, reflecting a commonly held, but inaccurate, perception among community members that girls are more vulnerable to infection:

> *"Net priority is girls. Girls are more essential. Girls have 'weaker blood.' Boys think they can resist."*
>
> *~ Male local council member, Moyo district*

Respondents also identified exposure at school as a risk factor for adolescent boys and girls. In the urban district of Masaka (Nyendo Mukudde), local council members identified poor hygiene and stagnant water around schools as potential mosquito breeding grounds and a risk factor for school children's exposure. Respondents reported that it can be difficult to hang nets at schools. Late night and early morning classes were reported as a risk factor for students in Masaka district.

4.2 MALARIA PREVENTION

4.2.1 Preventing malaria in pregnancy

[44] Carlson JC, Byrd BD, Omlin FX. Field assessments in western Kenya link malaria vectors to environmentally disturbed habitats during the dry season. *Bmc Public Health* 2004; **4**: 7.

[45] Lalloo DG, Olukoya P, Olliaro P. Malaria in adolescence: burden of disease, consequences, and opportunities for intervention. *Lancet Infectious Diseases* 2006; **6**(12): 780-93.

Pregnant women are more susceptible to malaria due to their weaker immune status. Malaria in pregnancy is associated with adverse outcomes including miscarriage, low birth weight, and maternal anemia. The Government of Uganda has adopted a three-pronged approach to preventing and treating malaria in pregnancy: increasing ITN use, providing three or more doses of intermittent preventive therapy (IPTp) through antenatal care (ANC), and effective clinical case management for malaria infection.[46] Current statistics show that the country has made strong progress on the prevention side in terms of increasing ITN use and IPTp uptake, but the findings below identify several gender-related barriers that need to be addressed for continued progress.

> The **Yumbe** sub-county of Kochi has a by-law requiring women to give birth at a health facility. Women who give birth at home are issued a fine that is paid to the health facility. The fine is issued even in circumstances where women do not have resources for transport to reach a health facility in time. The threat of a fine acts as a deterrent to women attending antenatal care and IPTp uptake because women will attempt to hide their pregnancies to avoid a fine if they cannot get to a health facility to deliver.
>
> *~ KII respondents, Kochi Sub-County*

4.2.1.1 Intermittent preventive therapy in pregnancy

Women's ability to access IPTp through antenatal care is affected by their ability to make independent decisions regarding their own health care, and their access to and control over financial resources. DHMTs, health facility management committees, health workers, and VHTs were asked about the reasons behind the low percentage of pregnant women receiving two or more doses of IPTp nationally (45 percent). The most common response was poor or late ANC attendance. The 2011 Uganda Demographic and Health Survey supports this, reporting that only 21 percent of women who were pregnant in the five years preceding the survey had their first ANC visit before the fourth month of pregnancy.[47] The median duration of pregnancy at first ANC visit was 5.1 months.[48] Poor ANC attendance as a barrier to IPTp has been identified in Malawi and Tanzania as well.[49,50] The reasons behind poor ANC attendance are explored below.

Financial barriers

Various respondents reported that women often attend ANC late in their pregnancies because of the many costs associated with attending a health facility, including public facilities where services are supposed to be free. Respondents identified costs for transportation, maternity clothing, and medication (when public health facilities are out of stock) as the most significant financial barriers. To obtain financial resources for any health-care associated costs, both male and female respondents reported that women must seek the permission of the head of household, which is most often a man. Thus, if the male household head does not

[46] NMCP, Uganda Malaria Reduction Strategic Plan, 2014.

[47] UBOS, Uganda Demographic and Health Survey, 2012.

[48] UBOS, Uganda Demographic and Health Survey, 2012.

[49] Yoder PS, Nsabagasani X, Eckert E, Moran A, Ye Y. Perspectives of health care providers on the provision of intermittent preventive treatment in pregnancy in health facilities in Malawi. *BMC Health Services Research* 2015; **15**: 354.

[50] Kibusi SM, Kimunai E, Hines CS. Predictors for uptake of intermittent preventive treatment of malaria in pregnancy (IPTp) in Tanzania. *BMC Public Health* 2015; **15**: 540.

have sufficient financial resources or does not view the expense as a priority, women may have to forgo ANC. In Yumbe, one local council reported that health facilities require women to bring their own birthing supplies including gloves, basins, and mackintosh sheets/bed wetting sheets. Yumbe respondents also identified IPTp stock-outs as a serious challenge. Distance (and lack of transport) was identified as a deterrent in all districts except Moyo, where health facilities are reportedly located nearer to communities. Female FGD respondents in Masaka district (Bakakkata sub-county) reported that health workers in public facilities would say there was no medication available, but once patients offered to pay, the supplies were made available.

Mandatory male attendance at ANC visits

To encourage men's engagement in ANC, the Ministry of Health implemented a national policy requiring men to accompany women to their first ANC visit. As an incentive, couples who attend together are prioritized for service. While well-intentioned, the policy's implementation has led to some unintended negative consequences, including acting as a barrier to IPTp uptake. Respondents in all districts reported men's reluctance to accompany their partners for ANC. Reasons given included not seeing any personal benefit to attending, not wanting to waste time and resources, feeling embarrassed to be seen accompanying their partner to a health facility, and wanting to avoid mandatory HIV testing. Men's fear of HIV testing has been found to be a barrier to health facility attendance in other studies as well.[51,52] As a result, respondents reported that women are more likely to delay attending ANC while they try to convince their partners to accompany them, or they may face challenges in securing resources for transport or other ANC-related costs from their male partners who do not see the value in regular ANC attendance. A study in Gulu district, Uganda found that empowering male partners with knowledge about ANC services can reduce this effect by increasing their ANC participation.[53] Female respondents also reported fearing the judgement they will face from health workers and other clinic attendees for seeking ANC alone. The only exception to this trend is in Masaka, where health sector respondents reported that women do not wait for their partners to accompany them. The reasons behind this deviation are unclear. However, it is an urban district, and women there may have greater access to their own financial resources which would grant them greater agency over health care decisions.

Lost productivity

There is also an opportunity cost for women who attend ANC. Going to a health facility can take up to a full day because of the distance, difficulties in obtaining transport, and long waits for service. A day away from home means that other household and productive responsibilities go unattended, including agricultural and other income-earning responsibilities, meal preparation, and child care. In many cases, women must bring their children with them to the health facility. This loss in productivity is hard to justify when a woman feels healthy and considers the pregnancy to be going well. Many health workers reported that women do

[51] Mutua et al., Lay knowledge and management of malaria, 15.

[52] Shuford K, Were F, Awino N, et al. Community perceptions of mass screening and treatment for malaria in Siaya County, western Kenya. *Malaria Journal* 2016; **15**: 71.

[53] Tweheyo R, Konde-Lule J, Tumwesigye NM, Sekandi JN. Male partner attendance of skilled antenatal care in peri-urban Gulu district, Northern Uganda. *Bmc Pregnancy and Childbirth* 2010; **10**: 9.

not come for ANC because they feel fine, and either do not see the benefit in obtaining antenatal care or are not aware of the availability of a preventive treatment for malaria in pregnancy. This finding is supported by data from the most recent *Uganda Malaria Indicator Survey* where it was reported that 40 percent of women who know that malaria can be avoided did not know of any drug that could be taken during pregnancy to prevent infection.[54] Similar findings have been reported in other settings.[55] Further, of the women who had knowledge of the malaria drug sulfadoxine/pyrimethamine (SP/Fansidar) and its role in preventing malaria in pregnancy, only 53 percent said it should be taken at least three times.[56]

In Masaka and Bukomansimbi districts, health workers reported that women are more likely to depend on traditional birth attendants (TBA) who are active in communities for antenatal care, instead of taking the time to travel to health facilities. Female FGD respondents reported a preference for TBAs because of their ready availability in the community, their long-built trust and relationship with the community, and confidence in their expertise because of their seniority. Poor quality of services at health facilities and their distance were also factors why women turn to TBAs, in addition to peer influence from other women who have delivered successfully with the assistance of a TBA. Contrary to these findings, national statistics report that less than 1 percent of women receive antenatal care from a TBA.[57] However, women may be trying to conceal and therefore underreporting their use of TBAs due to the government's official ban on them in 2010.[58]

Poor health service quality

Women's limited access to and control over financial resources means women must rely more heavily than men on the free services available through the public health system. Consequently, when public sector health service quality is poor, women and children are especially affected. Poor treatment by health workers, drug stock-outs, long waits, and irregular facility operating hours all affect women's ability to access ANC and IPTp. Poor health service quality combines with the opportunity costs of going to a health facility to discourage women from making the effort, especially when they are not experiencing any illness. Women and adolescent girls participating in FGDs often identified poor treatment by health workers and drug stock-outs as reasons that discourage them from attending public health facilities. Poor treatment included general rudeness and judgmental attitudes on the part of health workers. For example, some health workers said that women will give misinformation regarding how many pregnancies they have had, and how far along they are in their current pregnancy.

The identification of poor health service quality as a barrier was consistently found across women's and girls' focus groups. Out of 14 FGDs held with women (7) and adolescent girls (7), 11 groups identified at least one health service quality-related constraint to accessing health care (the exceptions were Masaka/ Bukakata sub-county women, Bukomansimbi

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[54] UBOS, Uganda Malaria Indicator Survey, 2015.

[55] Oluwatosin OA, Aluko JO. Compliance with intermittent preventive treatment during pregnancy among postpartum women in Ibadan, Nigeria. *African Journal of Medicine & Medical Sciences* 2014; **43**(1): 67-74.

[56] UBOS, Uganda Malaria Indicator Survey, 2015.

[57] UBOS, Uganda Demographic and Health Survey, 2012.

[58] Rudrum S. Traditional Birth Attendants in Rural Northern Uganda: Policy, Practice, and Ethics. *Health Care for Women International* 2016; **37**(2): 250-69.

women, and Moyo girls). Eight FGDs[59] identified delays in care or the absence of health workers as a key constraint. Six FGDs[60] identified drug stock-outs as a constraint, with rural FGD respondents more likely to report it as a problem. Six FGDs identified abuse or mistreatment by health workers as a barrier. Similar findings were reported in a qualitative study conducted in Mali and Kenya, where barriers to accessing care included poor health provider skills, drug unavailability, and costs of services.[61] A study of ANC and IPTp compliance in rural Uganda found the main reasons women did not receive two or more doses during ANC were failure of the health worker to provide SP/Fansidar (for unknown reasons), SP/Fansidar stock-outs, and irregular ANC attendance,[62] supporting this study's findings that the quality of service delivery has an impact on IPTp uptake.

Side effects

Some DHMT members and health workers reported women refusing to take SP/Fansidar due to negative side effects, such as nausea and vomiting, but there was disagreement among respondents as to whether this was a legitimate concern. Some respondents thought that side effects only occur if the medication is taken on an empty stomach, while others reported there were no side effects associated with the medication. Female respondents were not questioned about IPTp side effects. According to WHO guidance, SP/Fansidar can be given on an empty stomach or with food, but this study suggests that efforts to minimize potential side effects in the administration of IPTp in health facilities may improve uptake.[63]

[59]Masaka (Nyendo Mukudde sub-county) women, Kabarole women, Yumbe women and girls, Bukomansimbi girls, Moyo women, and Hoima women and girls.

[60]Masaka (Bakakkata) girls, Masaka (Nyendo Mukudde) women and girls, Kabarole women, and Yumbe women and girls)

[61] Hill J, Kayentao K, Achieng F, et al. Access and use of interventions to prevent and treat malaria among pregnant women in Kenya and Mali: a qualitative study. *PLoS ONE [Electronic Resource]* 2015; **10**(3): e0119848.

[62] Ndyomugyenyi R, Katamanywa J. Intermittent preventive treatment of malaria in pregnancy (IPTp): do frequent antenatal care visits ensure access and compliance to IPTp in Ugandan rural communities? *Transactions of the Royal Society of Tropical Medicine & Hygiene* 2010; **104**(8): 536-40.

[63] World Health Organization, Global Malaria Programme. Intermittent Preventive Treatment of malaria in pregnancy using Sulfadoxine-Pyrimethamine (IPTp-SP).Updated WHO Policy Recommendation (October 2012). Geneva, Switzerland: WHO; 2012.

Adolescent pregnancy

Respondents reported that adolescent pregnancy is common in all districts. According to national statistics, 25 percent of women aged 15-19 years have begun childbearing.[64] Nearly 40 percent of women aged 20-49 gave birth by 18, and 63 percent by age 20.[65] Pregnant adolescents face particular challenges in accessing health care, including ANC. Many respondents said that girls will attempt to conceal their pregnancies for as long as possible to avoid stigma and discrimination by health workers, their families, and the larger community. Girls fear harsh treatment by health workers and other clinic attendees who they feel will judge or blame them for becoming pregnant. Health workers and VHTs did not report mistreating pregnant adolescents, but said they treated them in the same manner that they treat all mothers. A study of the experiences of pregnant adolescents in Uganda found that girls face domestic physical violence and psychological abuse from parents, partners, and the community. Health workers were found to be rude and unsympathetic, which contributed to delayed health-seeking.[66] Similarly, another Ugandan study found that pregnant adolescent girls were the group least likely to use ANC due to stigma and the negative attitudes of health workers.[67]

> "Pregnant girls have challenges. They are blamed by their parents and others. They are abandoned by their boyfriend. Some parents are really tough. Because of the defilement law, parents will block access to the local clinic. To punish the men, they will tell the girl to go to Kampala."
>
> ~ DHMT, Bukomansimbi district

> "Pregnant adolescents and unmarried women face stigma. Health workers are hurling insults—"How did you get pregnant? Who is the father?" Even the people you wait with are eyeing you. There is no feeling of encouragement. Stigma makes girls not want to go to ANC··· They become an outcast in their family and [the family] will not advise the girls to go to the health facility, or give them money to go.
>
> ~ District Community Development Officer

The Moyo DHMT reported that pregnant adolescent girls are reluctant to "mix with mothers" at health facilities because of their fear of judgement. The Bukomansimbi DHMT similarly said:

> *"Pregnant adolescents, when they come they are mixed with all populations. They won't listen. They experience discrimination and stigma from other women. Health workers can blame them and make negative comments. This discourages them from coming back.*
>
> *~ DHMT, Bukomansimbi district*

Pregnant girls may also be forced from their homes, making it more difficult to obtain the support they need to access antenatal care. Families often want to conceal the shame of having an unwed pregnant teenager, so they will not provide financial

[64] UBOS, Uganda Demographic and Health Survey, 2017.

[65] UBOS, Uganda Demographic and Health Survey, 2012.

[66] Atuyambe L, Mirembe F, Johansson A, Kirumira EK, Faxelid E. Experiences of pregnant adolescents--voices from Wakiso district, Uganda. *African Health Sciences* 2005; **5**(4): 304-9.

[67] Mbonye AK, Neema S, Magnussen P. Preventing malaria in pregnancy: a study of perceptions and policy implications in Mukono district, Uganda. *Health Policy and Planning* 2006; **21**(1): 17-26.

or emotional support for the adolescent girl to attend a health facility. She may also be deserted by the father of her child, and will not receive any support from him either. Some respondents reported that parents will force a pregnant girl to leave the family home and live with the father of her child.

> *"At home, some of the pregnant adolescents are handled well but some parents chase you to go and find the responsible man and stay with him."*
>
> *~ Adolescent girl FGD participant, Kabarole district*

Adolescent pregnancies can also lead to gender-based violence in the home. Pregnant adolescents may face violence from their fathers for being perceived as bringing shame on the family, or mothers may be blamed for their daughters' condition.

> *"When an adolescent is pregnant, [a] man can quarrel and [it] leads to gender-based violence. Some men chase women/wives out of the home blaming the mother for 'her' daughter's pregnancy that she failed to do good moral teaching."*
>
> *~ Adult female FGD participant, Masaka district (Nyendo Mukudde)*

The responses above imply a gap in communication between household members, particularly fathers and adolescents, which worsens when there is a challenge such as teenage pregnancies. The blame put on women when girls become pregnant as teenagers also implies that parental guidance and direction is left to women.

Laws to prevent child marriage and teenage pregnancy

According to Uganda's Penal Code (Amendment) Act, any person who performs a sexual act with another person who is below the age of 18 commits a felony known as defilement and is liable to life imprisonment.[68] This law is intended to prevent child marriage and teenage pregnancy, but it also has negative consequences for women's and girls' health, including deterring them from obtaining antenatal care. Some respondents, including health workers, female FGD participants, and local leaders reported that pregnant adolescents fear questions about the identity of the baby's father from health workers, and thus avoid attending ANC to protect his identity.

> *"Parents prefer to keep the issue at home. Girls worry the boy will get in trouble. They will say the boy is from Kampala."*
>
> *~ Health workers, Moyo district*

> *"Pregnant girls – they don't go because they know they will be given letters and sent for their partners/responsible men."*
>
> *~ Adult female FGD participants, Kabarole district*

> *"Because of the defilement law, parents will block access to the local clinic. To punish the men, they will tell the girl to go to Kampala which makes men pay more for ANC visits."*
>
> *~ DHMT, Bukomansimbi district*

[68] Acts supplement No. 4. *The Uganda Gazette No 43* 2007; **C**.

However, adolescent girls gave a more nuanced response. While some expressed concern about questioning by health workers about the baby's father, they also said this concern would not be a barrier if the health of the baby was at risk.

> *"If I am aware of the defilement law and its provisions and well knowing that health workers may insist on knowing the responsible man for my pregnancy, I would still go to the health facility in order to save the life for my baby because adolescent pregnant girls are handled well at the health facility."*
>
> *~ Adolescent girls FGD participant, Masaka district*

> *"[The] defilement law cannot stop adolescent girls because if you are pregnant, you have to visit [a] healthy facility for support. Some fear due to shyness, some think of aborting due to having unplanned pregnancy and denial by responsible men."*
>
> *~ Adolescent girls FGD participant, Kabarole district*

> *"Defilement law would hardly stop a pregnant youth who knows the importance of ANC and the risks caused by malaria."*
>
> *~ Adolescent girls FGD participant, Moyo district*

One adolescent girl said she would avoid a health facility if it was her husband who would be arrested for defilement. These nuanced views reflect the complexity of the calculations adolescent girls must make when deciding to attend a health facility.

> *"If the law is to follow a pregnant girl and find out the culprit, this wouldn't affect my decision, but if I am married and they are to arrest my husband, then I would fear coming to the health facility."*
>
> *~ Adolescent girls FGD participant, Bukomansimbi district*

4.2.2 Increasing use of and access to ITNs

4.2.2.1 ITN access

> *"Bed nets may be given, but not enough. When a man gets a bed net with many children, the issue is who's more loved. Ninety-nine percent of care work for malaria patients is done by women; unfortunately they do not do a lot in decision making. Definitely the man is overall supreme culturally. Decision depends on man if nets are available."*
>
> *~ Male KII respondent, Yumbe District*

Access to ITNs has improved in Uganda. Seventy-eight percent of Ugandan households own at least one ITN, and 51 percent have at least one ITN for every two persons.[69] Most ITNs (87 percent) are obtained through mass distribution campaigns, but other sources include pharmacies, shops, and the open market. Only two percent of ITNs are obtained through government facilities.[70] Ownership of at least one ITN varies by region. For the regions covered in this study, the proportions are: 79 percent in South Central (Bukomansimbi, Masaka), 92 percent in West Nile (Moyo, Yumbe), 76 percent in Buyoro (Hoima), and 77 percent in Tooro (Kabarole).[71] At the

[69] UBOS, Uganda Demographic and Health Survey, 2017.

[70] UBOS, Uganda Malaria Indicator Survey, 2015.

[71] UBOS, Uganda Demographic and Health Survey, 2017.

time of this report's writing, a national ITN mass distribution campaign was underway. The last campaign was conducted in 2014.

Insufficient and damaged nets

Some respondents reported not having enough nets for all household members, and/or having old and damaged nets that do not offer sufficient protection. Female FGD participants reported having old or torn nets in Moyo and Masaka (Bakakkata) districts. Male FGD participants said the same in Yumbe and Moyo districts. Most respondents referred to the last mass distribution campaign as the main source for nets and emphasized the need for another campaign. Kabarole district leaders reported that residents do not repair or replace damaged nets that are given to them through mass distribution campaigns. This may indicate that people are inclined to wait for distribution campaigns as opposed to using their own limited resources for repair or replacement. Female FGD participants referenced the need for the government to distribute more nets to replace damaged ones. The views of a local village leader in Kabarole district suggest that people are dependent on distributions by government:

> *"What we have supplied does not cover all household members, and none is supposed to die on behalf of others. Distribution has remained inadequate and who says two people in a household have to share? If distribution is to be there, [it] should be universal for all. The rest are left out."*
>
> *~ Male local council member, Kabarole district*

Damage to ITNs from papyrus mats, upon which children most often sleep, was cited as a problem in Moyo and Yumbe districts because it shortens the lifespan of nets. Male FGD participants in Moyo district spoke of the problem of damaged nets:

> *"In my home all nets are now torn and everybody sleeps without nets."*
>
> *~ Adult male FGD participant, Moyo district*

> *"Bed nets were distributed but they are now torn. They were given about five years ago."*
>
> *~ Adult male FGD participant, Moyo district*

DHMT members in Yumbe district reported that even when a household has enough nets, they may have limited space and cannot hang them in a way that gives protection to all family members. Local officials in Masaka district (Nyendo Makudde) similarly reported that many people often sleep in one room, making it impossible to hang nets to protect everyone.

Maintenance of nets was reported to be the responsibility of women, but any financial resources needed to repair or replace damaged ITNs is often controlled by men. Men can also decide to sell the ITN or use it for other purposes, such as for poultry caging, to protect their gardens, or as fishing nets:

> *"Sometimes because whatever is at home belongs to the husband, he might decide to sell some of the nets. People use the rough nets for different activities/purposes, including making ropes, building houses, etc. Where a net is to be used for another purpose, the husband will decide on how to use that net."*
>
> *~ Male political leader, Yumbe district*

Similarly, a study in Benin found that women had to ask their husbands for permission to re-treat or replace ITNs, and that when women had control over their own resources, they were more likely to purchase an ITN for the household.[72]

4.2.2.2 ITN use

The majority of respondents, both male and female, stated that the two priority populations for ITNs use are children under five and pregnant women. National statistics indicate that this holds true in Ugandan households. Among pregnant women age 15-49 in households with at least one ITN, 79 percent slept under an ITN the night before the survey.[73] The proportions were comparable in urban and rural settings at 83 and 78 percent, respectively.[74]

Household sleeping patterns

ITN use is affected by culturally defined sleeping patterns. Respondents reported that men and women often share a bed, and that is where the net is usually hung. The youngest child may sleep with the parents, thus providing them protection. However, if the male head of the household decides he does not want to sleep under a bed net, then one is not used on the family bed, increasing women's and young children's exposure risk. Older children are more likely to sleep on mats on the floor, where it is more difficult to properly hang and secure an ITN. It should also be noted that families rarely buy own nets to supplement those distributed by government.

Respondents also reported that large family size is a problem as many children often sleep under one ITN, reducing the net's efficacy. The average household size is 4.9 persons in Uganda, with an average of 5.2 persons in rural areas, and 4.1 persons in urban areas.[75] A Nigerian study found that the rate of ITN use was positively associated with having a family size of one to four persons.[76] Babalola and colleagues found that net use was inversely related to family size in Liberia (meaning the larger the household, the less likely it was that a household member would sleep under an ITN), and that older children and teenagers were less likely to sleep under an ITN.[77] A study of net use in four regions of Uganda concluded that children who co-sleep with their mothers are more likely to sleep under a bed net.[78]

Household decision-making

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[72] Rashed S, Johnson H, Dongier P, et al. Determinants of the Permethrin Impregnated Bednets (PIB) in the Republic of Benin: the role of women in the acquisition and utilization of PIBs. *Social Science & Medicine* 1999; **49**(8): 993-1005.

[73] UBOS, Uganda Demographic and Health Survey, 2017.

[74] UBOS, Uganda Demographic and Health Survey, 2017.

[75] UBOS, National Population and Housing Census, 2014.

[76] Iloh GU, Amadi AN, Obiukwu CE, Njoku PU, Ofoedu JN, Okafor GO. Family biosocial variables influencing the use of insecticide treated nets for children in Eastern Nigeria. *Journal of Family and Community Medicine* 2013; **20**(1): 12-9.

[77] Babalola S, Ricotta E, Awantang G, Lewicky N, Koenker H, Toso M. Correlates of Intra-Household ITN Use in Liberia: A Multilevel Analysis of Household Survey Data. *Plos One* 2016; **11**(7): 16.

[78] Mugisha F, Arinaitwe J. Sleeping arrangements and mosquito net use among under-fives: results from the Uganda Demographic and Health Survey. *Malaria Journal* 2003; **2**: 10.

When asked the question, "Who in the household decides who sleeps under the mosquito net?" most male and female respondents reported, "the woman" or "mother." Respondents noted that men are rarely at home, and that women have primary responsibility for the care of the family and home, including preparing beds and securing nets in the evenings. However, when probed further, it was clear that respondents felt that men hold ultimate decision-making authority as the household head and can overrule a woman's decision on net use at any time. For example, different respondents reported that when there is a disagreement between a couple, a woman can be forced to sleep on the floor with her children, or even outdoors. Women who are in a late-term of pregnancy or breastfeeding may be forced to sleep elsewhere so as not to disturb their husbands. It was also reported that men can decide not to use the net because it is too hot. These situations occur despite general agreement by male and female respondents that children under five years and pregnant women are to be prioritized for net use, suggesting that there is a disconnect between men's views on net use priority and their actual practices. Lam and colleagues found similar results in their study on decision-making on intra-household allocation of bed nets in Uganda.[79]

> *"Man is the head, and woman is the shoulders."*
>
> *~ Male district political leader, Hoima District*
>
> *"For allocation [of] a resource, it's mainly men, but implementation is the women."*
>
> *~ Male local council member, Kabarole District*

ITN use by men

Men's practices regarding ITN use are equivocal, and generally not well-studied. Some respondents reported that men are not concerned about sleeping under an ITN.

> *"Men are careless and won't even sleep under a net."*
>
> *~ DHMT member, Moyo district*

On the other hand, another Moyo district DHMT member, as well as a local council member in Yumbe district, said that men tend to prioritize themselves to sleep under a bed net. In Bukomansimbi district, a local council member said that men will sleep under a net if there are enough—implying that others will be given priority when there is a shortage. Men themselves, in focus group discussions, said that children are prioritized for net use, but did not speak to their own practices. Previous research findings are similarly conflicting. Babalola et al. reported that men are less likely to sleep under an ITN compared to women and children under five years.[80] However, in a small household sub-sample in Uganda, only two out of the fourteen identified male heads of household (14 percent) slept without a net.[81]

Men reported concerns about the safety of ITNs. Respondents at the district and community levels in Bukomansimbi district reported worries that ITNs may catch fire from candles (commonly used in rural areas), uncertainty about how long treated nets are effective at repelling mosquitos, and concerns about the health effects of the chemicals used to treat the nets.

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[79] Lam Y, Harvey SA, Monroe A, et al. Decision-making on intra-household allocation of bed nets in Uganda: do households prioritize the most vulnerable members? *Malaria Journal*; **13**: 183.

[80] Babalola et al., Correlates of Intra-Household ITN Use in Liberia,16.

[81] Lam Y, Harvey SA, Monroe A, et al. Decision-making on intra-household allocation of bed nets in Uganda, 183.

"We received nets but some people use them for poultry. Every household got nets. Others say they cause heat. Others are just lazy. We also do not know when these nets stop repelling or killing mosquitoes, we need to know. We also think the chemical in the nets can be harmful to the people. Other people fear that the nets can lead to burning of houses as many people in the rural areas use candle for lighting their houses. This is common in house where there are children reading books using candles."

~ Male FGD participants, Bukomansimbi district

ITN use by adolescents

Adolescent boys and girls were reported to have little or no priority for ITN use within a household, especially when there are not enough nets for all members. One explanation given by a district political leader was that with families struggling to care for large numbers of children, children become responsible for their own care once they are old enough (approximately 10 years). In Hoima, a political leader reported that children aged 10 and above will construct their own huts on the family homestead, but they are often not capable of maintaining a net on their own. Some KII respondents reported that adolescents themselves do not prioritize sleeping under an ITN, but many adolescent boys and girls who participated in focus group discussions reported sleeping under an ITN to protect themselves from infection, as long as a sufficient number of nets were available for all family members. If the number of ITNs was limited, children, pregnant women, and sometime the elderly, were most often reported as household priorities for ITN use. In one FGD discussion in Masaka district, seven of the nine participating adolescent girls reported sleeping under an ITN. Comparably, five out of six adolescent girls reported using an ITN in Moyo district. Boys reported similar practices.

"We protect ourselves by sleeping under bed nets, slashing compound, draining stagnant water and keeping homes clean. We have bed nets and everyone sleeps under a bed net."

~ Adolescent boy FGD respondents, Yumbe district

"We all have bed nets and all people at home sleep under a bed net. Priority is usually given to children."

~Adolescent boy respondents, Bukomansimbi district

These findings may reflect a disconnect between adults' perceptions of adolescent practices and their actual actions, and warrants further study. As it stands, there are currently few studies examining ITN use in adolescents, and none of them examined the possible gender dimensions of net use. The study by Lam and colleagues observed that study participants assumed that adolescents were better able physically to care for a net and had the capacity to obtain a new one if needed, implying they should not be prioritized in the allocation of scarce household resources.[82] In Malawi, a recent study of school-aged children (5-15 years) found that they were significantly less likely than the rest of the population (odds ratio [OR]

[82] Lam Y, Harvey SA, Monroe A, et al. Decision-making on intra-household allocation of bed nets in Uganda, 183.

from 0.14 to 0.38) to use a net, and that children aged 11-15 were significantly less like to use nets than children aged 5-10.[83]

4.3 MALARIA DIAGNOSIS AND TREATMENT

4.3.1 Implementation of integrated community case management of malaria (iCCM)

Community health workers make home visits for integrated community case management of malaria (iCCM), which provides integrated diagnosis and treatment of malaria, pneumonia, and diarrhea in children under five. Patients are screened and treated for all three diseases based on the results of rapid diagnostic testing (RDT) for malaria, disease history, and respiratory rate.[84] iCCM is provided through VHTs in Uganda in pilot districts. USAID's Malaria Action Program for Districts supports the scale-up of iCCM in Uganda.

Community perceptions of VHTs

Respondents provided feedback about the role of VHTs in malaria diagnosis and treatment. Female FGD respondents, including adolescent girls, identified VHTs as their first point of access for health care when a child is ill. In contrast, only one male FGD respondent (Yumbe district) said he would first consult a VHT if a child was ill. This may be due to men's frequent absence from the home and limited role in child care, which would result in fewer interactions with VHTs, and less awareness of the VHT role in child health. Respondents reported that VHTs are helpful because of their ready availability in the community.

> *"When a child is very sick, we first visit VHTs [for children under five years] for treatment or referral note. With referral note, they first work on you at the health facility. VHTs conduct immunization awareness-raising. They are helpful, though at times we go there and there are no drugs but still they refer us to the health facility."*
>
> *~ Adult female FGD respondents, Hoima district*

> *"If a child is on treatment, [the VHTs] keep checking on him. Some give drugs after testing blood; give deworming tablets to all even in schools. They are helpful because some people can't buy drugs when [a] child is sick. They handle us with care."*
>
> *~ Adolescent girl FGD respondent, Masaka district (Bakakkata)*

Female FGD respondents reported positive interactions with VHTs, including ease of access to treatment and timely service at health facilities if they first consult a VHT. A commonly identified constraint was a shortage of drugs and RDTs.

> *"The VHTs are helpful because if you go to [a] health facility with a child showing tests done, you don't line up, you see nurses quickly and we are counseled as well. VHT leave their beds at night to ensure that the child stabilizes. They provide first aid drugs."*

[83] Buchwald AG, Walldorf JA, Cohee LM, et al. Bed net use among school-aged children after a universal bed net campaign in Malawi. *Malaria Journal* 2016; **15**: 127.

[84] WHO. Integrated Community Case Management of Malaria. 12 July 2016 2016. http://www.who.int/malaria/areas/community_case_management/overview/en/ (accessed 20 March 2017).

~ Adolescent girl FGD respondent, Kabarole district

The positive feedback on VHTs points to the important role they play in malaria prevention, diagnosis, and treatment in children, and the potential they present for overcoming gender-related barriers to malaria diagnosis and treatment in children—especially women's limited access to and control over resources needed for timely treatment. A recent study of iCCM introduction in Uganda found increased access to health care for children, and decreased out-of-pocket costs due to reduced transportation costs and less time away from home.[85] Another study found that iCCM increases access and is the first choice of caregivers of febrile children.[86] A study by Lal and colleagues concluded that the frequency of malaria diagnoses declined at health centers with the introduction of a community health worker-led intervention to diagnose and treat malaria in communities, reducing the burden on health facility-based workers.[87]

Women's decision-making power

> *"Men decide who goes for treatment because we pay the bill."*
>
> *~ DHMT member, Masaka district*

Respondents agreed that while women are best placed to decide when it is necessary to seek treatment for a sick child, men, as the head of household, control the resources needed to access treatment. This gives men final decision-making authority over where and when to access treatment. Thus, if men do not prioritize spending resources on treatment, it will often be delayed. A study in Ghana supports this observation, finding that women who lacked either short- or long-term economic support from male relatives, or disagreed with their husbands or family elders about appropriate treatment-seeking, faced difficulties in accessing health care for children with malaria.[88]

This points to the importance of bringing services closer to the community, and the need to better engage men in malaria prevention and treatment programs. This problem was raised by respondents in Bukomansimbi district and other sites. One DHMT member explained how men's control of resources can lead to greater health care costs if treatment is delayed:

> *"The man controls the resources. He may decide a child cannot go to the health facility, and will not give money. He will say to get Panadol, but because he waited, costs will double."*
>
> *~ DHMT member, Bukomansimbi district*

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[85] Buchner DL, Brenner JL, Kabakyenga J, et al. Stakeholders' perceptions of integrated community case management by community health workers: a post-intervention qualitative study. *PLoS ONE [Electronic Resource]* 2014; **9**(6): e98610.

[86] Mukanga D, Tibenderana JK, Peterson S, et al. Access, acceptability and utilization of community health workers using diagnostics for case management of fever in Ugandan children: a cross-sectional study. *Malaria Journal* 2012; **11**: 121.

[87] Lal S, Ndyomugenyi R, Alexander ND, et al. Health Facility Utilisation Changes during the Introduction of Community Case Management of Malaria in South Western Uganda: An Interrupted Time Series Approach. *PLoS ONE [Electronic Resource]* 2015; **10**(9): e0137448.

[88] Tolhurst R, Nyonator FK. Looking within the household: gender roles and responses to malaria in Ghana. *Transactions of the Royal Society of Tropical Medicine and Hygiene* 2006; **100**(4): 321-6.

Health care workers reported men coming to health facilities to retrieve women who seek treatment without their permission. Their comments reinforce the perception that women are to play a submissive role to men.

> *"The woman decides but the man must give permission. The man controls the money. The woman is submissive. But sometimes women go without his permission, and tell him to go pay. I have seen men come and take women back."*
>
> *~ Health Center III health care workers, Bukomansimbi district*

Respondents also discussed how household decisions regarding health care would improve if women controlled the resources.

> *"Men control resources. If women had resources, it would be different. Men economize their money and this affects making the right decision. Women are more likely to spend money on health. Women feel more the pain when someone is sick. Women will even sell clothes to get treatment for their children."*
>
> *~ VHTs, Bukomansimbi district*

However, female FGD respondents reported more independence than KII respondents indicated, and male FGD respondents in Bukomansimbi said that women can make decisions about health care when their husbands are away.

> *"Women decide because we are the ones who care about children. First, we visit VHTs for children; old people come directly to the health facilities. Health facilities were built near us so women decide on where to go but if money is required, men are informed to find women at health facilities. If there is need for transport, men provide. If there is a bicycle at home, men take us themselves. Some men take even children to health facilities depending on [the] situation to avoid delays."*
>
> *~ Adult female FGD participants, Bukomansimbi district*

The reasons for this discrepancy between KII and FGD respondents' views are unclear. It could not be explained by gender or occupation of KII respondents.

Women's ability to make decisions is increased in situations where the head of household is absent in the case of emergencies.

> *"The head of the household who is usually a man makes the decision on seeking treatment. However, if it is an emergency, any adult at home can make a decision for seeking treatment. Even a neighbor can help if adults are away from home and there is an emergency."*
>
> *~ Adult male FGD respondents, Moyo district*

Women who earn an income also have greater independence in household decision-making. This view was expressed in the urban sub-county of Nyendo Mukudde in Masaka district:

> *"Women usually decide but in some very few families, it is all about agreeing. Women decide when a man is not around. When man decides, we agree to get the child treated, but if we have the required money, we can refuse the man's decision and visit another health facility."*
>
> *~ Adult female FGD respondents, Masaka district (Nyendo Mukudde)*

Gender-based violence

Disagreements on the allocation of household resources toward treatment was frequently reported as a potential cause of gender-based violence, and threats of violence can inhibit women from taking timely action to seek malaria treatment for themselves and their children.

Only 38 percent of currently married women participate in all three decisions pertaining to their own health care, major household purchases, and visits to their family or relatives.[89] With respect to violence, 43 percent of ever-married women report ever experiencing physical violence committed by their current or most recent husband or partner, 22[90] percent report sexual violence, and 43 percent report emotional violence. More than half of ever-married women (51 percent) have experienced physical and/or sexual violence, and six in ten have experienced at least one of the three forms of spousal violence.[91,92]

The United Nations defines violence against women as any act of **gender-based violence** that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life.

Global estimates published by WHO indicate that about **1 in 3** (35%) women worldwide have experienced either physical and/or sexual intimate partner violence or non-partner sexual violence in their lifetime.

Violence can negatively affect women's physical, mental, sexual and reproductive health, and may increase vulnerability to HIV.

Source: WHO, 2016.

KII and FGD respondents reported violence as a potential outcome of disagreements over treatment decision-making, especially if women use household resources to seek treatment without their husbands' permission.

> *"A lot of violence happens in our community. Some women bring children to VHT for first aid first and some men say that since you had taken the decision yourself, continue and treat on your own, hence refusing to provide financial support which results into quarrels and fights. Also lack of care for women and children by men, lack of money to take children for treatment which has made women to end up taking on the responsibility of caring for children as men resort only to drinking alcohol. "*
>
> *~ Adult female FGD respondents, Kabarole district*

> *"Taking [a] child to private health facility without considering your husband's income can cause problems. When we fight, woman leaves bed, sleeps with children or on mat down without a net."*
>
> *~ Adult female FGD respondent, Hoima district*

[89] UBOS, Uganda Demographic and Health Survey, 2012.

[90] UBOS, Uganda Demographic and Health Survey, 2017.

[91] UBOS, Uganda Demographic and Health Survey. 2017.

[92] UBOS, Uganda Demographic and Health Survey, 2012.

Arguments that can lead to violence also start if a mother requests resources to take a child for treatment and her husband cannot or will not provide them.

> *"It all falls back on women if she does not [take a child for treatment], it becomes an issue. There was this scenario where the husband wasn't providing for a sick child with malaria, and they fought not only once."*
>
> *~ District official, Yumbe district*

No published studies were identified exploring the relationship between gender-based violence and malaria prevention and treatment. However, a study of the associations between maternal experiences of intimate partner violence (IPV) and child nutrition and mortality in Kenya found a statistically significant association between maternal exposure to IPV and higher mortality in children under 2 years old, and higher child stunting rates.[93]

Polygyny

Polygyny is the practice of having more than one wife at a time. Twenty-five percent of married women in Uganda are in a **polygynous** union. Polygyny is more common in rural Ugandan communities.

Source: UBOS, 2011.

The cultural practice of polygyny was reported in all regions and identified by respondents as a barrier to malaria prevention, diagnosis, and treatment, as well as a cause of gender-based violence. Twenty-five percent of married women in Uganda are in a polygynous union. Rural women are more likely to be in polygynous unions (26 percent) than urban women (20 percent). The prevalence of polygyny in the regions covered by this study is 17 percent in Central, 31 percent in West Nile, and 24 percent in Western.[94] Study respondents reported that men with multiple families often face difficulties in providing the necessary resources for malaria prevention and treatment for all dependents. They also cited competition between families and favoritism as problems.

> *"If I am a man and nets are to be registered for, I can choose the family I love much [more] to be registered [and this] causes friction. Even children will tend to feel that their fathers aren't prioritizing them and tend to think that they don't belong to their fathers."*
>
> *~ Political leaders, Hoima district*

> *"Men have left home maintenance to women. [Because of] polygamy, men are visitors in their home."*
>
> *~ DHMT, Yumbe district*

The result is that women take on the bulk of the reproductive and productive responsibilities in polygynous households. Previous research indicates that women's and children's health in polygynous homes may be at risk. A study conducted in Bamako, Mali, found that the number of wives of the household head was associated with lower attendance at more costly health

[93] Rico E, Fenn B, Abramsky T, Watts C. Associations between maternal experiences of intimate partner violence and child nutrition and mortality: findings from Demographic and Health Surveys in Egypt, Honduras, Kenya, Malawi and Rwanda. *Journal of Epidemiology and Community Health* 2011; **65**(4): 360-7.

[94] UBOS, Uganda Demographic and Health Survey, 2012.

facilities due to lower income per capita.[95] Wagner and Rieger compared health outcomes of children in polygynous families with monogamous families living in the same village in a large sample of countries and observed that child health declined as the number of wives increased.[96]

Supernatural beliefs

Strong cultural beliefs in witchcraft and the supernatural, especially among women, can result in many people first turning to herbal medicines to treat fever and convulsions, including in children under five. All districts reported the use of herbal medicines to treat malaria symptoms. Respondents in four rural districts (Moyo, Yumbe, Hoima, and Bukomansimbi) reported a common local belief that malaria symptoms are caused by witchcraft, and that local herbs are the appropriate treatment. Only when these local treatments fail do women bring their children to a health facility for care. Female FGD respondents spoke about witchcraft as a cause of illness, but male FGD respondents did not. However, men and adolescent boys spoke of using herbal medicines to effectively treat illness. It should also be noted that in Uganda, many communities use herbs as a first line treatment due to long distances to the health centers and lack of resources for treatment. Health workers in Hoima reported that beliefs in witchcraft and the use of herbal medicines are promulgated by female elders in the community.

The belief in witchcraft was particularly prevalent in Hoima district where even health workers expressed a belief in *bihara* (witchcraft) as a cause of fever. They reported that male and female community members fear giving an injection to a child with convulsions as they believe it will lead to death. The situation will even become more complicated where a health facility cannot carry out tests for malaria due to stock-outs of test supplies.

> *"There is a strong belief in traditional herbs for healing a fever during harvest time of mangoes and maize with a high belief in witchcraft. I remember at one time, I got a child who was very sick but the mother believed that if the child was injected, that he would die."*
>
> *~ DHMT, Hoima district*

> *"This thing with* bihara*, even when child is convulsing, mothers can refuse to have the child injected and many children die. Women believe that when you mix modern medicine with* bihara *the child will die and so they tend to run away from the health facility."*
>
> *~ Health workers, Hoima district*

Other research reports similar findings, such as studies finding that cases of severe malaria in children can be confounded with witchcraft, especially when treatment does not provide the

[95] Mariko M. Quality of care and the demand for health services in Bamako, Mali: the specific roles of structural, process, and outcome components. *Social Science & Medicine* 2003; **56**(6): 1183-96.

[96] Wagner N, Rieger M. Polygamy and Child Health. Do babies get sick if daddy has many wives? Geneva: Graduate Institute of International and Development Studies; 2011.

expected results.[97,98,99.] A Tanzanian study recommended closer collaboration between traditional healers and modern health practitioners as a way to improve early referral and prompt treatment.[100]

4.3.2 Men's treatment-seeking behavior

Respondents consistently concurred with locally held beliefs that men are naturally stronger than women, and better able to stave off illness. Many stated that they believed men are less likely to contract malaria, or to become seriously ill, because of their innate masculine "strength." As such, men and adolescent boys are less likely to perceive themselves at risk of contracting malaria, less likely to take the necessary precautions to prevent infection, and less likely to seek timely treatment when they are ill.

> *"Men want to first treat themselves and can ask neighbors for drugs or buy from a clinic/drug shop before going to health facilities. Men tend to ignore mild sickness. Reasons tend to be cultural which is believed that a man should be strong but also ignorance about timely seeking of care. Some don't want to wait at the health facilities for care and yet buying drugs is quick."*
>
> *~ DMHT, Yumbe district*

> *"If one falls often sick, you are associated with women; that you are behaving like women."*
>
> *~ Health workers, Moyo district*

Men and adolescent boys point to the fact that malaria prevention campaigns emphasize the risks for young children and pregnant women, and conclude that they must be less vulnerable. Respondents reported that when men do become ill, they often delay attending a health facility until their illness is severe. Instead, they are more likely to self-medicate, or to seek treatment at private facilities – suggesting that men are more willing to pay for services that are perceived to be of higher quality for themselves over other family members. Respondents also reported than men often mistake malaria symptoms for a hangover or fatigue, further delaying a decision to seek treatment.

> *"Women try to get treatment and sleep under nets and children are brought immediately but men normally present late, thinking it is fatigue."*
>
> *~Health workers, Kabarole district*

> *"Alcohol affects men's ability to perceive symptoms. They think it is just a hangover."*

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[97] Good C. Ethnomedicals Systems in Africa. London: Guilford Press; 1987.

[98] Pool R. Dialogue and the Interpretation of Illness: Conversations in a Cameroon Village. Oxford: Berg; 1994.

[99] Makundi EA, Malebo HM, Mhame P, Kitua AY, Warsame M. Role of traditional healers in the management of severe malaria among children below five years of age: the case of Kilosa and Handeni Districts, Tanzania. *Malaria Journal* 2006; **5**: 9.

[100] Makundi et al., Role of traditional healers in the management of severe malaria among children below five years of age, 9.

~ DHMT, Moyo district

"Personally, I think men are a bit selfish when sick, they go to town for better drugs but women and children are required to go to nearby health facility."

~District political leaders, Kabarole district

"Men who do go to [public] health facilities don't want to wait. They find it disrespectful, so they go to [private] clinics."

~ Health workers, Yumbe district

As a result, men often suffer more severe illness and for a longer duration, which has implications for women's and girls' work burdens. When the head of the household is seriously ill, household income and productivity suffer. Women are required to compensate with additional income-generating activities on top of their existing productive and reproductive responsibilities. There is also a greater burden of care placed on women and school-age girls, who may be taken out of school to care for sick family members.[101,102]

4.3.3 The impact of malaria on the household

The impact of malaria in the household is felt the greatest by women. Respondents were unanimous that women are responsible for the care of ill family members, adding an additional burden to their already heavy workload. Activity profiles conducted with FGD participants in all districts showed that women have primary responsibility for the majority of activities related to preventing and treating malaria in the household, including preparing bedding, taking sick family members to the hospital, providing drinking water, caring for the sick, giving medication, hanging the ITN, and preparing food.

A common perception among male and female respondents was that women are more naturally inclined to care for others.

"They are caring and loving and kind. They are the ones who produced [the children] so it is their role naturally."

~ Adolescent girl FGD respondents, Masaka district

"Women do more because they are the care takers."

~ Adult male FGD respondents, Yumbe district

"Women are naturally created nurses."

~ District political leaders, Hoima district

Adolescent girls are also heavily impacted as they take on extra caretaking duties when malaria affects the household. Conversely, there is reportedly minimal impact on adolescent boys. The Bukomansimbi DHMT, health workers, local council members reported that girls miss

[101] Roll Back Malaria, Gender and Malaria, 2015.

[102] Heggenhougen KH, Hackethal V, Vivek P. The behavioural and social aspects of malaria and its control: An introduction and annotated bibliography. Geneva: UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR); 2003.

school to assist their mothers at home when a household member has malaria. Respondents in other districts expressed similar sentiments.

> *"Adolescent girls are most affected when mother is sick, or if mother needs help. There is not much impact on adolescent boys."*
>
> *~ Community development officer, Masaka district*

4.4 STAKEHOLDER CAPACITY TO PROVIDE GENDER-RESPONSIVE MALARIA SERVICES

The greatest opportunity available to overcoming gender-related barriers to effective malaria, prevention, treatment and control in Uganda is the openness and enthusiasm of stakeholders to addressing the gender issues related to malaria prevention and control. Respondents showed great interest in the issues raised during interviews. On more than one occasion, respondents thanked the research team for the unexpected learning opportunity presented by the interview. On the other hand, it was clear that many respondents have a limited understanding of the gender dimensions regarding malaria prevention and control, except for district community development officers (CDOs), who have valuable knowledge of the gender issues in their communities and their impact on women's and children's health (see below).

4.4.1 Service providers' capacity

The capacity of health workers, and the health system to provide high-quality malaria services, affects both the demand for and the supply of malaria prevention, diagnosis and treatment services. Respondents identified discrimination against women and girls who do not conform to societal norms (e.g., teenage pregnancy or pregnancy out of wedlock) as a significant barrier to preventing malaria in pregnancy. The most critical skills shortage identified by respondents is health workers' interpersonal skills (see Section 3.2.1.1). Poor treatment and unprofessional behavior by health workers discourage women and girls from attending health facilities for prevention and treatment services. Female FGD respondents in Masaka district (Bakakkata) said they are reluctant to attend health facilities because some health workers sell drugs to patients, or make drugs available if they are offered a bribe. They also reported neglect when health workers are seen to be "just conversing," or socializing, instead of working. Adolescent girls in Masaka district (Nyendo Mukudde) reported that poor sanitation, poor treatment diagnosis, lack of medicine, rudeness of health workers, and the presence of unqualified health workers all discourage attendance. Men and boys in Masaka district had similar complaints:

> *"Challenges of government health facilities that discourage us: drug stock outs; absenteeism of health workers; sometimes they ask for money and sometimes they are rude."*
>
> *~ Adolescent boys FGD respondents, Masaka district (Nyendo Mukudde)*
>
> *"[Health workers] have brokers. They ask for money and they take you to the doctor and they will give part of what you pay to the health workers/doctors."*
>
> *~Adult male FGD respondents, Masaka district (Nyendo Mukudde)*

Few health workers and VHTs reported gender equality training, with no systematic approach to gender training indicated in any districts. Two VHTs in Yumbe reported receiving training on gender in relation to diseases. Some DHMT members and health workers in Bukomansimbi district reported receiving training on gender-based violence.

There was also confusion among health workers about their obligation to report cases of defilement to authorities. Yumbe VHTs reported that they must report cases to the police,

while health workers in one facility reported that cases are dealt with in the community, and their responsibility is to provide services only. At the district level, the Masaka DHMT said there is no requirement to report cases to authorities, while the Bukomansimbi DHMT reported the opposite.

4.4.2 District supervisors' capacity

Complementary to improving service providers' capacity is the need to strengthen district supervisory capacities to improve health service quality and community demand for services. As already discussed, respondents complained of irregular operating hours, health workers' selling drugs that should be free, poor facility maintenance, and poor treatment by health workers. Some respondents reported health facilities closing between midday and around 2:30 pm with the evening shift midwife starting work at 7:00 pm. This, together with staff absenteeism, limits women's access because their mornings are spent working in the garden and preparing meals. Staff absenteeism was reported everywhere, but the Hoima DHMT provided more details on how this can happen. They reported that health workers practice "organized absenteeism," where some staff members are away from the facility but the records show they are present. This also affects ANC services by causing delays and poor attitudes among health workers due to heavy workloads. Improved supervision and training by district supervisors will help to ameliorate the situation, and increase access to quality malaria and prevention treatment for women and children.

4.4.3 District-level gender capacity

DHMT members, health facility in-charges, health workers, and VHTs reported some gender training, but it is not systematic. The DHMT in Yumbe district reported sporadic gender training but did not provide details. The Kabarole district DHMT reported receiving training through Belgium Development Cooperation.

Most DHMTs referred to the CDO as their main source of gender expertise. However, both DMHTs and CDOs reported that CDO engagement in health programming was minimal, with the exception of Hoima district, where the DHMT and CDO reported CDO engagement in mobilization activities and the setting of medical policies (though not in regard to malaria specifically). CDOs are informed and committed gender resources that are largely untapped by district malaria programs. Their increased engagement with the DHMT and the district's malaria focal point is an opportunity to improve DHMT capacity to implement gender-responsive programming. The most likely constraint will be the availability of sufficient gender resources to support DHMTs on a regular basis, depending on CDOs' existing workloads.

> **"Gender-sensitive** programming refers to programmes where gender norms, roles and inequalities have been considered and awareness of these issues has been raised, although appropriate actions may not necessarily have been taken."
>
> **"Gender-responsive** programming refers to programmes where gender norms, roles and inequalities have been considered, and measures have been taken to actively address them. Such programmes go beyond raising sensitivity and awareness and actually do something about gender inequalities."
>
> Source: WHO, 2009.

DHMTs, CDOs, health center in-charges, and health workers were asked how gender is currently integrated into malaria prevention and treatment services. Respondents commonly identified the targeting of women and children under five by district malaria programs as a gender-responsive approach. Gender policies related to human resources hiring practices at

the district and community levels (e.g. village health management committees) were also highlighted as a gender-responsive approach in a few districts. For example,

> *"For health, we have policies that guide our structures. Village health management committees [have] these policies and clearly spell out proportions for females and males. We have these policies that govern us and gender issues are very critical. Gender issues and concerns are mainstreamed in service delivery within our district e.g. in recruitment and where possible we try to uplift women to ensure they join us. At the community level, recruitment is based on gender and this also applies to management boards at a health facility."*
>
> *~ DHMT, Kabarole district*

However, gender-responsive programming goes beyond these approaches toward identifying and addressing the gender norms, roles and inequalities that may affect program outcomes for all sexes. For example, the integration of income-generating activities for women as part of a malaria program would be a gender-responsive approach to addressing a key barrier to timely malaria treatment: women's access to and control over resources. Or, behavior change communication activities targeting men to improve their support for antenatal care is a gender-responsive approach to the challenge of improving women's attendance at antenatal care clinics. Unfortunately, DHMT respondents reported that strategies for behavior change communication and community outreach often do not adopt different approaches for engaging men, women, and adolescents in malaria prevention, treatment, and control. DHMT respondents indicated that they reached women more than men and adolescents, and agreed that continuing to use the same approaches to reach these different audiences would not produce different results.

While the collection of routine malaria data is sex- and age-disaggregated, analyses are rarely stratified by sex, and stratification by age is limited to two strata: 0-4 years, and 5 years and above. IPTp doses and malaria cases in pregnant women are tracked as part of antenatal care. Such data do not easily lend themselves to gender-responsive analyses because the gender-related issues concerning malaria do not relate to the prevalence of the disease in men versus women, but to understanding the gender-related beliefs, norms, and practices that affect men's and women's differential vulnerabilities and responses to malaria infection. Household surveys, such as the Malaria Indicator Survey (MIS), are conducted regularly and provide more data on malaria knowledge, access to and use of mosquito nets, and the management of fever and anemia in children. However, such surveys tend to target women, leaving a gap in knowledge regarding men's knowledge, attitudes, and practices. DHMTs reported that health management information system (HMIS) and MIS data are used to inform programming planning, but none reported examining data for men and women separately. Data collection and analysis regarding the impact of malaria programs are primarily conducted as part of targeted studies, and are often driven by the donor funding the study.

4.4.4 National Malaria Control Program (NMCP) capacity

NMCP respondents were not aware of any engagement of the MoH gender focal point in the national malaria control program. There are several opportunities to improve gender integration in national malaria policies and tools through USAID's Malaria Action Program for Districts, including revisions to the national malaria monitoring and evaluation (M&E) plan, and the midterm review of the National Malaria Reduction Strategic Plan. The MoH gender focal point will be a valuable resource to inform these initiatives and to strengthen the working relationship between the MoH and the Ministry of Gender, Labour, and Social Development (MGLSD). Participation by the gender focal point in national malaria technical working groups

(TWG), especially the malaria in pregnancy and social mobilization groups, is another potential opportunity to effect change.

5. CONCLUSION

Women play a crucial role in malaria prevention, treatment, and control. Cultural norms identify them as the primary caretakers of children and the home, with all the corresponding responsibilities and pressures. While recent statistics show that women have a high level of knowledge about malaria prevention and control, information is not enough. They also need a sufficient degree of empowerment, access to resources, and a supportive enabling environment to empower them to act. This research shows these factors to be absent for many Ugandan women.

Women and children are more vulnerable to malaria infection due to the extended hours women spend working in areas where mosquitos are prevalent and during peak biting times, such as the home and in agricultural fields when they stay overnight in makeshift shelters. Long hours working both in and out of the home place women and children at risk during peak biting times. Demanding workloads can delay decisions to seek timely treatment for themselves or their children as women try to balance the competing demands placed on them.

Limited access to resources further inhibit women's ability to act. Men retain the position of head of household and provider in most homes, consequently also controlling household resources. Women can act to prevent or treat malaria only to the degree that their resources and decision-making power allow. Decisions regarding mosquito net use, or where and when to access treatment or antenatal care, while believed to be the domain of women, may be overridden at any time by the male head of the household, especially if resources are required. Disagreements over resource utilization can lead to violence in the home and further increase women's and children's risk of malaria infection. Competition for resources between polygynous families further complicates matters.

Women bear the brunt of the impact of malaria. They are responsible for the care and treatment of any ill family members, especially children, and can face domestic violence if they are perceived to be providing inadequate care or neglecting their remaining household duties while they care for others. When a woman is sick with malaria, the entire household suffers. Adolescent girls are expected to take over their mother's responsibilities, preventing them from attending school and receiving an education.

Men are not immune to the negative interaction between gender and malaria. Cultural norms around masculinity equate sickness with weakness. Despite exposure to malaria through their work and social practices, such assumption about masculinity likely play a role in men being less likely to view themselves as at risk of infection and less likely to seek timely treatment when they are ill. Men are also more likely to self-medicate to save time and resources. While they are not as intensely affected by illness in the home as women, they do face considerable pressure to provide resources for their families. When they themselves are ill, the household suffers enormously as the main breadwinner is compromised.

Adolescents face many challenges in protecting themselves from malaria, largely because they are not considered to be a priority population for prevention and treatment in the home or in the health system. Consequently, adolescents do not perceive themselves to be at high risk and do not take the necessary precautions to prevent infection or to seek timely treatment. Like men, adolescent boys believe admitting illness to be a sign of weakness and will delay seeing a medical professional until they are severely ill. Pregnant adolescent girls face challenges due to stigma and discrimination at home and at the health facility, which discourage them from seeking ANC or accessing resources to prevent and treat malaria in pregnancy.

Laws and policies meant to protect and support women and girls sometimes have the unintended effect of discouraging treatment-seeking behavior. Adolescent girls may be discouraged to seek ANC or malaria treatment by their partners and families to avoid exposing defilement cases. Poor health service quality compounds the issue as women and girls fear judgement and abuse by health workers for early or multiple pregnancies, or the absence of an accompanying male partner. Long waits for service, drug stock-outs, and irregular operating hours at public health facilities further discourage treatment-seeking in all ages and genders, but affect women and children the most as they rely heavily on free services.

This study presents evidence that gender inequalities limiting women's decision-making power and access to resources have negative implications for malaria prevention, treatment, and control in Uganda. As the primary caretakers in the home, women are responsible for preventing and treating illness, but they often do not have sufficient control over resources or influence in decision-making to take timely and informed action. Increasing male engagement in malaria prevention and control, including improving their own treatment-seeking behaviors, is needed going forward. Improvements in health service quality, and reforms to health sector policies that inadvertently disempower women, are also needed for continued progress in malaria prevention and control. Special attention to the needs of adolescents, especially pregnant teens, is required. The project has a valuable opportunity to build on the interest and engagement of stakeholders to combat gender inequalities in malaria prevention and control. While it cannot overturn longstanding cultural practices that put women and children at increased risk of malaria, it can implement strategies to compensate for these gender imbalances.

6. RECOMMENDATIONS

Social and behavior change communication (SBCC) forms a critical aspect of USAID's Malaria Action Program for Districts. It is a valuable entry point for addressing gender dynamics in malaria prevention, treatment, and control by promoting behaviors grounded in the specific socio-ecological context in which people operate that can lead to improvements in health outcomes. Throughout the recommendations below, efforts were made to indicate priority SBCC messaging that addresses gender dynamics, including specific messaging that targets men's, women's, and adolescents' unique needs.

6.1 PREVENTION

Increase women's awareness of the availability and value of IPTp for preventing malaria in pregnancy, and the importance of regular ANC clinic attendance.

Awareness of IPTp among women of reproductive age (WRA) is low. SBCC programs targeting adolescent girls and WRA are needed to increase awareness and uptake. Messages should focus on the benefits of prevention to the health of the mother and fetus, as well as the safety of the IPTp regimen. Efforts to increase IPTp awareness and uptake should be combined with existing programs to increase ANC clinic attendance for possible cost savings. Misconceptions about the dangers of taking SP/Fansidar or artemisinin-based combination therapy (ACT) during pregnancy should also be addressed in SBCC messaging targeting women and adolescent girls, ensuring use of appropriate media and timing.

Increase men's awareness of the importance of, and their support for, women's regular ANC clinic attendance.

SBCC programs should develop messaging specifically targeted to men to encourage their support of their partners' regular attendance at ANC clinics. Messaging should appeal to men's desire to protect their families, and their responsibilities as the head of the household to promote and protect the health of all family members. Messaging should emphasize how the upfront expense of attending ANC can offset much greater expenses and loss of productivity due to serious illness down the line. Messages should encourage male attendance during ANC visits, but at the same time emphasize that women should attend regardless of whether their partner can join them.

Encourage the Ministry of Health to include a package of health services for men as part of ANC programs.

To address men's reluctance to attend ANC with their partners, the Ministry of Health should be supported to work with districts to implement a package of basic health services for men to be provided when they accompany their partners to ANC. Bukomansimbi was the only district that reported offering services (blood pressure testing) to men as part of ANC. Even the promise of a small benefit may encourage male attendance.

Improve the quality of ANC/IPTp services provided in public health facilities by training health workers on interpersonal skills and MIP guidelines, improving health worker availability, and reducing SP/Fansidar stock-outs.

Increasing demand for ANC and IPTp must be complemented by improvements in the quality and availability of services. One way to achieve this is through interpersonal skills training for health workers to reduce levels of patient abuse and discrimination, particularly behaviors targeted at adolescent girls and unmarried women. Further research into the reasons behind health workers' rude or discriminatory behaviors is needed to inform the skills training

curricula. Health workers should also receive up-to-date training on national MIP guidelines, as there remains confusion about whether two or three doses of SP/Fansidar are recommended, and the timing of doses. Training should also clarify how SP/Fansidar should be given to avoid negative side effects is needed in health facilities. District health authorities should investigate and address the reasons behind irregular health facility operating hours and poor health worker attendance, and explore ways to better align facility hours with women's work schedules. Finally, the project should look for opportunities to partner with existing supply chain projects to improve the availability of SP/Fansidar in health facilities.

Advocate for the MoH to review health sector policies mandating male attendance at ANC and mandatory HIV testing.

Health policies, such as mandatory male attendance at ANC appointments and mandatory HIV testing for couples that are intended to improve antenatal care and protect public health may be doing the opposite. These findings should be brought to the attention of the Ministry of Health, and a policy dialogue should be supported to explore ways to reduce the unintended, negative consequences on ANC clinic attendance and IPTp uptake. Further, health workers should be trained not to discriminate against or deny services to women who attend ANC without their partners.

Collaborate with women's economic empowerment projects in project districts to increase women's and girls' access to and control over resources for health.

While increasing men's buy-in to ANC and IPTp is important, efforts should also be made to support women's greater economic independence and decision-making, and to encourage men to support this shift. Opportunities should be explored to collaborate with existing women's empowerment projects. District community development officers (CDOs) are valuable sources of knowledge of district-level gender-related programs, and they should be engaged to help identify possible partnerships.

Another resource available to identify potential partnerships is the Oxfam Uganda-supported catalogue of women's economic empowerment projects in Uganda.[103] The catalogue provides an overview of each organizations' area of operations (districts and counties), target populations, empowerment activities, and major sources of funding, making it easy to identify potential partners in the project's target districts. For example, BRAC Uganda provides livelihood skills development for adolescent girls, financial services (micro-finance and enterprise loans), market linkages, agronomic training and support for improved agriculture inputs (seeds) for rural women. It is active in 78 districts in all regions of the country.

Increase men's and women's awareness of proper ITN usage, maintenance, and safety.

Men and women are generally aware of the importance of sleeping under a bed net, but concerns about safety and allergic reactions prevent them from using ITNs consistently. People may be experiencing allergic reactions because the nets are not properly aired out before use; thus, further education for women and men on ITN use and maintenance is needed through SBCC messaging and other delivery platforms. SBCC messaging and other awareness-raising efforts should also educate men and women on the safety of the chemicals used to treat ITNs.

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[103] Agency for Capacity Building (ACB), Catalogue of Women Economic Empowerment (WEE) Actors in Uganda, March 2015.

Increase men's awareness of and support for ITN use by all household members.

As the household head, men have considerable influence over bed net use. Among awareness campaigns to increase ITN use for all family members, including adolescents, some must specifically target men to reduce the likelihood that their actions will act as a barrier to proper and consistent ITN use. Similar to the approach recommended for IPTp uptake, SBCC messaging should appeal to men's desire to protect their families, while also emphasizing the financial benefits of preventing serious illness in the home. Use of participatory methods that promote reflection, such as games, case studies and group exercises, will increase chances for attitude change. Opportunities to work with existing men's groups should be explored.

Increase ITN coverage and use.

Increasing the number of ITNs per household will reduce the likelihood that women will have to choose between protecting themselves and their children, reduce crowding under nets, and increase the chances that adolescents will have access to an ITN. The awareness raising activities proposed above should accompany planned project activities to achieve universal coverage, including a mass net distribution campaign, Activities and campaigns promoting universal ITN coverage should ensure all households within a polygynous family are included in net distribution campaigns. One strategy is to better engage women in the registration process, as opposed to relying solely on male heads of household to register families.

Conduct further research into men's knowledge, attitudes, and practices regarding ITN use.

Little information is available on men's ITN practices because most surveys target women of reproductive age, including the Malaria Indicator Survey and the Demographic and Health Survey. Because men's behaviors can act as a barrier to other family members' ITN use, especially women and young children, a better understanding of men's knowledge, attitudes, and practices is needed to inform malaria prevention programs.

6.2 DIAGNOSIS AND TREATMENT

Continue the scale-up of iCCM services as an effective method for overcoming gender-related barriers to malaria prevention and treatment services for children under five.

The delivery of services at the community level is an effective method to ensure women can take timely action to address malaria despite their limited decision-making power and access to resources. Critical to the success of this package is the consistent availability of commodities, including ACTs and RDTs, for VHTs to deliver reliable and quality services.

Increase men's awareness of and support for early malaria diagnosis and treatment for all family members, including themselves and adolescents.

SBCC programs should engage men in promoting early diagnosis and treatment for all family members, including themselves and adolescent family members. Such messaging should both highlight the cost-savings of timely treatment, as well as the fact that early diagnosis and timely treatment for all family members will reduce the circulation of the parasite in the home, and consequently, the risk posed to more vulnerable family members.

Develop gender- and age-specific behavior change communication strategies to reduce reliance on traditional medicines and the practice of self-medication, and to encourage completion of drug regimens.

Women are more likely to have supernatural beliefs and to turn to traditional medicines to treat febrile children. They are also more likely to not complete a treatment regimen to

reserve medication for their children. Men are more likely to self-medicate through drug shops or private clinics, and to not complete treatment regimens once they begin to feel better. SBCC programs should target women and men with messages about the dangers of these practices, and they should be coupled with efforts to improve drugs stocks in public health facilities to ensure viability of following through on this messaging.

Explore opportunities to support village health funds to increase the availability of resources at the community level.

Village health funds present an opportunity to remove a significant barrier to timely diagnosis and treatment. Community-based health insurance schemes that allow community members to pool resources can cover transport and medication costs. Improving women's access to resources through village health funds will provide them with options when their partners are away, as is frequently the case. Participating in a community health insurance scheme also may promote dialogue between men and women on resource use for health care and provide a way to avoid financial stress, which in turn can reduce the likelihood of gender-based violence.

Build on lessons from the HIV sector to address gender inequalities in malaria prevention, treatment, and control.

The HIV/AIDS sector was one of the first health sub-sectors to prioritize and implement efforts to mainstream gender equality in its programming. Lessons learned over the last two decades can help inform similar strategies for malaria given the similar challenges such as male-female power dynamics, harmful cultural practices and norms, limited male engagement, stigma and discrimination, and gender-based violence.

- The President's Emergency Plan for AIDS Relief (PEPFAR) prioritized action to change male norms, respond to gender-based violence, and address adolescent vulnerability. PEPFAR also emphasized the importance of sex-disaggregated data, addressing gender barriers to male prevention, and enhancing women's personal decision-making.[104]
- UNAIDS produced a guide for working with men for HIV prevention and care that provides male engagement strategies that can be adapted to malaria prevention and treatment.[105]
- A short review of programs in Zimbabwe presents community-based strategies to encourage men to take responsibility for their actions; work with community members to address negative notions of masculinity and femininity; and engage traditional leaders in the examination and eradication of harmful cultural practices. Their experiences emphasized the importance of tapping into positive aspects of culture, and prioritizing young people as a target group.[106]

[104] Office of the United States Global AIDS Coordinator. The Power of Partnerships: The President's Emergency Plan for AIDS Relief. Third Annual Report to Congress. Washington, D.C., U.S.A.; 2007.

[105] UNAIDS. Working with Men for HIV Prevention and Care. Geneva, Switzerland: UNAIDS; 2001.

[106] Kureya T, Sibanda S. Best Practices on Challenging Gender Dynamics in Cultural Context. Zimbabwe: SAfAIDS; 2011.

- Assessments of gender-responsive HIV/AIDS programs can provide lessons on male engagement in antenatal care, and transforming gender norms to promote gender equality and improve health outcomes. [60,61107108]
- The World Health Organization has developed a guide for the integration of gender in HIV/AIDS programs in the health sector. It describes the basic steps in gender-responsive programming, which can be adapted to addressing gender-related barriers to malaria prevention and treatment.[109]

In Uganda, Community Development Officers are often already engaged in HIV prevention programs, working closely with DHMTs. Their knowledge and experience in the HIV/AIDS sector, in addition to their gender expertise, can be leveraged to translate local lessons learned to the malaria sector.

6.3 CAPACITY BUILDING

Conduct gender training with health service providers, district supervisors, and DHMTs to improve capacities to deliver gender-responsive malaria services.

District health authorities and service providers are implicitly aware of the gender-related barriers to malaria prevention, diagnosis and treatment, but they do not always label them as such. Gender training efforts should build on their knowledge of the challenges facing men, women, adolescents, and children, assist them in relating it back to gender theory, and build their capacity to develop locally relevant strategies to overcome these challenges. Trainings should focus in particular on understanding men's and women's different behavioral motivations, and the importance of engaging men in malaria prevention, treatment, and control.

Leverage the expertise of district CDOs to strengthen DMHT gender capacity and gender integration in district-level malaria programs.

Community Development Officers are knowledgeable about local gender equality challenges and resources in their districts, and they should be systematically involved in malaria program planning, implementation, monitoring and evaluation. CDOs can inform gender training plans for DHMT members and health service providers, ensuring integration of local gender norms, beliefs, and practices and best use of local gender resources. DHMTs and CDOs already communicate regularly, and in some cases are collaborating on gender issues in other sectors, including gender-based violence, HIV/AIDS, and tuberculosis. The existing relationships can be expanded to include collaboration between CDOs and DHMT malaria focal points.

Strengthen district capacity to monitor service quality.

Poor service provision in public health facilities is one of the largest barriers to timely and effective malaria prevention, diagnosis, treatment, and control for women and children. In addition to improving service providers' interpersonal skills, additional supervision is needed

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[107] Gupta GR, Parkhurst JO, Ogden JA, Aggleton P, Mahal A. HIV prevention 4 - Structural approaches to HIV prevention. *Lancet* 2008; **372**(9640): 764-75.

[108] Cuco RMM, Munguambe K, Osman NB, Degomme O, Temmerman M, Sidat MM. Male partners' involvement in prevention of mother-to-child HIV transmission in sub-Saharan Africa: A systematic review. *Sahara J-Journal of Social Aspects of Hiv-Aids* 2015; **12**(1): 87-105.

[109] WHO. Integrating gender into HIV/AIDS programmes in the health sector. Geneva: WHO; 2009.

to address facilities' irregular operating hours, health worker absenteeism, and potential abuses of power or illegal activities, including the private sale of public commodities.

Support relationship building-between the MoH gender focal point and NMCP team.

Efforts are needed to improve the working relationship between the MoH gender focal point and NMCP. The focal point should be invited under the project to contribute to the development of national malaria policies and guidelines, including the national M&E plan and midterm review of the National Malaria Reduction Strategic Plan. Further, the project should work with the GE focal point to identify additional gender resources at the MGLSD that may assist with building the capacity of NMCP to implement gender-responsive malaria policies and programs.

Build NMCP and DHMT capacities to conduct gender-responsive research and data analysis.

Greater emphasis is needed on the collection and use of gender-related data to inform malaria programming. This requires going beyond the collection of sex-disaggregated data to examining the gender-related beliefs, norms, and practices of women, men, girls, and boys that affect their vulnerability and responses to malaria infection. Trainings for NMCP and district M&E staff should focus on gender-responsive M&E techniques and how to conduct gender-responsive analyses using HMIS data, including examining how gender interacts with other social determinants of health to affect malaria prevention and control in their districts. Trainings also should sensitize DHMTs to the value of gender-responsive analyses to inform program design, and they should encourage DHMT members to lead in advocating for more gender-responsive, evidence-based health programming in their districts. Gaps in gender-related data should be identified and addressed in the national and district-level M&E plans.

Strengthen project staff's capacity to design, implement, monitor, and evaluate gender-responsive malaria programming.

Project staff have expressed interest and motivation to tackle the gender-related challenges to malaria prevention, diagnosis and treatment. Staff should be trained not only to integrate gender considerations into their area of responsibility (e.g. malaria in pregnancy, SBCC, monitoring and evaluation, capacity building), but also to guide and mentor district-level partners on gender-responsive malaria programming. Project staff should be encouraged to act as ambassadors to raise awareness and build local capacity to integrate gender considerations of malaria prevention, diagnosis, and treatment. The malaria related community dialogues planned by the project are an opportunity to use the findings of this analysis. The project can also draft a gender integration checklist to ensure that staff members consider the gender norms that can negatively affect the achievement of their activity objectives and also maximize the positive impact of their activities on the status of women, men, boys and girls in the community to improve their health outcomes.

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APPENDIX A

JANUARY 28, 2017

GENDER ANALYSIS FOR MALARIA ACTION PROGRAM FOR DISTRICTS IN UGANDA

WORKPLAN

Table of Contents

INTRODUCTION 52

OBJECTIVE 53

RESEARCH QUESTIONS 53

ANALYTIC FRAMEWORK 54

PATTERNS OF MALARIAL INFECTION AND CONTROL 54
FACTORS AFFECTING MEN AND WOMEN'S DIFFERENTIAL VULNERABILITY TO MALARIA INFECTION 54
FACTORS AFFECTING MEN AND WOMEN'S DIFFERENTIAL ACCESS TO MALARIA PREVENTION, DIAGNOSIS AND TREATMENT 56

METHODOLOGY 57

PHASE 1: DESK REVIEW 57
PHASE 2: KEY INFORMANT INTERVIEWS 57
PHASE 3: PARTICIPATORY FIELD ASSESSMENT 58
PHASE 4: ANALYSIS AND RECOMMENDATIONS 60
DATA COLLECTION 60
DATA ANALYSIS AND RECOMMENDATION FORMULATION 60
PHASE 5: DRAFT STRATEGY 61

TEAM MEMBER ROLES AND RESPONSIBILITIES 61

TIMELINE 61

APPENDIXES 62

APPENDIX A: DESK REVIEW REFERENCE LIST 62
APPENDIX B: ITINERARY FOR FIELD WORK 64
APPENDIX C: LIST OF KEY STAKEHOLDERS 68
APPENDIX D: INTERVIEW GUIDES 69
INTERVIEW GUIDE A: KEY INFORMANT INTERVIEWS AT NATIONAL AND DISTRICT LEVELS 69
INTERVIEW GUIDE B: HEALTH FACILITY MANAGEMENT TEAMS, HEALTH WORKERS, AND COMMUNITY HEALTH WORKERS 72
INTERVIEW GUIDE C: DISTRICT- AND COMMUNITY-LEVEL POLITICAL REPRESENTATIVES 75
COMMUNITY FOCUS GROUP EXERCISES 77

Introduction

The Malaria Action Program for Districts (MAPD) in Uganda, led by London-based NGO Malaria Consortium, will lead support to the Government of Uganda's National Malaria Reduction Strategic Plan, working in partnership with the National Malaria Control Program and District Health Management Teams in 43 focus districts. MAPD will support the implementation of results-driven, field-tested strategies to foster an enabling environment for this district-led program, to further consolidate gains to reduce the prevalence of malaria in Uganda. Banyan Global's role is to examine issues and constraints surrounding malaria treatment and prevention in Uganda for youth and women, and integrate gender and youth considerations across all program components.

This document presents a detailed workplan developed by the International Gender Consultant engaged by Banyan Global to carry out a gender-based analysis (GBA), and to develop a draft gender action plan for MAPD. The GBA will identify barriers hindering women from accessing malaria treatment and prevention services in Uganda, as well as propose solutions to determine how and where action can be taken to remove such obstacles.

Objective

The overall objective of the gender-based analysis is to identify the gender-related gaps, challenges, and constraints that may hinder MAPD goals and activities, and to identify the possible differential effects of the project on women, men, boys and girls.

Research Questions

The following research questions are adapted from the five analytical domains stipulated in the USAID ADS205:

1) How does the relative status of women and men[110] affect their differential access to/control over assets, resources, opportunities, and services related to the MAPD project, and broader issues concerning malaria prevention, diagnosis and treatment?
2) How do men's and women's respective roles, responsibilities and time use prevent or facilitate participation in the MAPD project, and malaria prevention, diagnosis and treatment activities?
3) Do relevant laws, policies and institutional practices contain implicit or explicit gender biases that may affect men's and women's ability to participate in the project, assume leadership roles, and access affordable and high quality malaria prevention, diagnosis and treatment services?
4) How do existing gender norms and cultural beliefs affect malaria prevention-, diagnosis, and treatment-related behaviors of women and men?
5) How do existing patterns of power and decision-making influence the ability of women and men to decide, influence, and exercise control over material, human, intellectual, and financial resources, in the family, community and country related to malaria prevention, diagnosis and treatment?
6) What are the potential impacts of the MAPD project on women and men, included unintended or negative consequences?

[110] All references to women and men in this document include boys, girls, and youth, as appropriate.

Analytic Framework

The analytic framework described below is adapted from the Liverpool School of Tropical Medicine *Guidelines for the Analysis of Gender and Health*. The framework is composed of three parts:

Part 1: Patterns of ill-health (who gets ill, when and where?)
Part 2: Factors affecting who gets ill (why do different groups of men and women suffer from ill-health? i.e. differential vulnerability)
Part 3: Factors affecting responses to ill-health (how are men and women's responses to ill-health influenced by gender? i.e. differential access to prevention, diagnosis, treatment, control)

7) Patterns of malarial infection and control

Patterns of malaria infection and control will be examined through a review of existing sex-disaggregated health outcomes data from the *2014-15 Uganda Malaria Indicator Survey*, as well as selected published literature (see Appendix A for draft reference list). To the extent possible, the analysis will be stratified by age, socio-economic status, ethnicity, and place of residence. The objective is to obtain a snapshot of the gender-related differences in patterns of malaria infection and control specific to Uganda.

The review of health outcome data will be supplemented by a review of women's empowerment data reported in the *2011 Uganda Demographic and Health Survey*. Topics address gender differences in employment, access to and control over cash earnings, asset ownership, participation in household decision making, and the relative earnings of husbands and wives. Understanding these patterns will provide insight into how women and men may experience differential vulnerability to infection, and access to prevention, diagnosis and treatment services, which are further examined in parts 2 and 3 of the analytical framework.

8) Factors affecting men and women's differential vulnerability to malaria infection

Table 1 provides a framework for the analysis of factors affecting differential vulnerability to infection for women and men. The factors in the left column are the areas of enquiry to be examined at the household, community, district and state levels. The matrix will be used to identify appropriate questions to be applied in key informant interviews and focus groups, and to guide the analysis of collected data.

Where possible, efforts will be made to capture how vulnerability differs by household structure (e.g. female-headed households, households where the husband does migrant work, widowed and divorced households), and for vulnerable populations, including people living with HIV/AIDS, refugees, internally displaced populations, and people living with HIV/AIDS. The vulnerability of adolescent girls to malaria infection will receive particular attention. Opportunities for behavior change communication will be identified.

9) Table 1. Matrix of factors affecting men and women's differential vulnerability to malaria infection

	Household	**Community**	**District**	**State**
How does the **environment** influence vulnerability to infection? • Living conditions				

• Working conditions • Geographical location and climate • General social and economic conditions				
How do the respective **roles**[111], **activities,** and **time use** of women and men influence their vulnerability to infection? • What do men and women do? • Are there health risks associated with specific activities? • Are there health risks associated with excessive burdens of work? • Are there health risks associated with lack of work?				
How does the relative **bargaining position** and **decision-making power** of women and men influence their vulnerability to infection? • Are women and men able and willing to protect their own health? Are there significant gender differences in women's and men's ability to protect their own health? • To what extent can women and men make independent decisions regarding their health and its protection? Are there gender differences in their ability to negotiate with others about their health protection?				
How does the relative access to and control over **resources** of women and men influence their vulnerability to infection? • Are there differences in women's and men's access to or control over resources that affect their ability to protect their own health?				
How do **gender norms** influence women and men's differential vulnerability to infection? • Are there accepted cultural norms or practices that affect women's and men's health, or women's and men's ability to protect their health? • What role does gender-based violence play in women's ability to protect their health, and that of their children?[112]				

[111] Refers to women's and men's productive, reproductive, community roles.

[112] References to gender-based violence include violence in close relationships, sexual violence (including rape, sexual assault, harassment in public and private places), human trafficking (including slavery and sexual exploitation), and harmful practices (including child marriage, female genital mutilation, and assaults in the name of 'honor').

How do existing **laws, rules, or institutional practices** influence women and men's differential vulnerability to infection?				

10) Factors affecting men and women's differential access to malaria prevention, diagnosis and treatment

Table 2 presents a matrix of factors to guide an examination of men's and women's differential access to malaria prevention, diagnosis and treatment. As with Table 1, the matrix will guide the development of key informant interview questions and focus group lines of enquiry, in addition to data analysis.

Again, special attention will be paid to the challenges faced in accessing malaria prevention, diagnosis and treatment services by adolescent girls, vulnerable populations (people living with disabilities, refugees, internally displaced populations, and people living with HIV/AIDS), and different household structures. Opportunities for behavior change communication will be identified.

11) Table 2. Matrix of factors affecting men's and women's differential access to malaria prevention, diagnosis and treatment

	Household	**Community**	**Health services (national, district, sub-county)**
How do the respective **roles**, **activities,** and **time use** of women and men influence their ability to access prevention, diagnosis, and treatment services? • Do women's and men's roles and responsibilities affect their willingness/ability to admit to being ill, and to seek treatment?			
How does the relative **bargaining position** and **decision-making power** of women and men influence their ability to access prevention, diagnosis, and treatment services? • Does women's and men's bargaining power affect their willingness/ability to admit to being ill, and to seek treatment?			
How does the relative access to and control over **resources** of women and men influence their ability to access prevention, diagnosis, and treatment services? • Do women's and men's access to and control over resources affect their willingness/ability to admit to being ill, and to seek treatment?			
How do **gender norms** influence women and men's ability to access prevention, diagnosis, and treatment services?			

• How do local perceptions of illness, and local norms concerning illness and treatment affect women's and men's willingness/ability to admit to being ill, and to seek treatment? • What role does gender-based violence play in women's ability to see treatment for themselves or their children?			
How do existing **laws, rules, or institutional practices** influence women and men's ability to access prevention, diagnosis, and treatment services?			

Furthermore, this study will examine the differential impacts of malaria on women and men, boys and girls, including any unintended negative consequences of malaria prevention and treatment activities on women, men, boys, and girls. It will examine the economic and social consequences for women and men when a household member becomes ill with malaria, including its impact on gender norms and values, and access to and control over resources.

Methodology

12) Phase 1: Desk review

Phase 1 is comprised of a desk review of key literature to set a solid foundation regarding:

- the main patterns of malaria infection and control in Uganda;
- the factors associated with gender-related vulnerability to infection and barriers to prevention, diagnosis and treatment services;
- existing Ugandan policies and frameworks related to gender and malaria;
- USAID and other donors', multilateral organizations' approaches to malaria and gender; and
- MAPD project components, implementation strategy, and gender strategy.

The desk review will seek to answer the questions laid out in the analytical framework matrices presented above, and will be used to inform the development of the interview guides and other related data collection tools. A list of key references to be reviewed is provided in Appendix A.

13)

14) Phase 2: Key informant interviews

Phase 2 involves key informant interviews with selected stakeholders in Kampala (see draft itinerary in Appendix B). A preliminary list of stakeholders is provided in Appendix C and will be finalized in collaboration with MAPD staff. Key stakeholders will include relevant government officials (political and bureaucratic at the national and district/sub-country levels), UN agencies and multilateral organizations, bilateral donors, academia, civil society organizations, and health sector staff.

Guiding questions for key informant interviews include:

1. What donor/government/multilateral programs and approaches are in place to assess and address the gender-related barriers to malaria prevention, diagnosis, treatment and control programs?

2. How are gender equality considerations currently integrated in the national malaria control program?
3. What are the key lessons learned and best practices for addressing gender-related barriers to malaria prevention, diagnosis, and control in Uganda?
4. What is the current capacity of the national malaria control program to integrate gender equality considerations in its work?
5. What are the key information gaps related to how gender inequalities impede malaria prevention, diagnosis and control, and what can the MAPD project do to address them?
6. What other organizations, private, public, or non-profit, are active in supporting or advocating for gender equality in the health sector, and in malaria, specifically?

15) Phase 3: Participatory field assessment

Approximately three weeks of field visits will be undertaken in three regions: Mid-Western, Central, and West Nile (see draft itinerary in Appendix B). Table 3 outlines the implementation districts to be visited by region. Two districts per region will be targeted, with a sub-selection of villages to be visited, covering both urban and rural areas. The final selection of districts, sub-counties, and villages to be visited will be made during the first week of key informant interviews in Kampala in coordination with MAPD project staff. MAPD project staff in the regions will facilitate access to communities, and negotiate with community leadership to mobilize community members to participate in focus group discussions.

16)

17) Table 3. Regions and implementation districts to be visited

Region	**Regional Office Location**	**Districts**
Mid-western	Hoima	Hoima
	Kabarole	Bundibugyo, Kabarole
Central	Kampala	Kampala
	Masaka	Bukomansimbi, Masaka
West Nile	Arua	Moyo, Yumbe

Key informant interviews will be held with district and sub-country health center in-charges, health center management committees, health workers, village health teams, community development officers responsible for gender, selected political representatives (including the district secretary for health, and women's council representatives), and community leaders.

Guiding questions for district-level key informant interviews include:

1. What are the conditions that make men, women, boys, and girls vulnerable to infection in your district? Are they different for men and women? How are you working to address them?
2. What are the most significant barriers to accessing prevention, diagnosis and treatment services for women and men?
    a. What is the level of knowledge in the population regarding ways to prevent infection? Ways to access diagnosis and treatment services?
    b. What factors influence an individual or family's decision to see treatment?

    c. Once the decision to seek treatment has been made, what factors influence their ability to access quality services in a timely manner?
3. What are the key information gaps related to how gender inequalities impede malaria prevention and control, and what can the MAPD project do to address them?
4. What programs and approaches are applied at the health center and community levels to assess and address the gender-related barriers to malaria prevention, diagnosis, treatment and control programs? How do you measure and monitor the effectiveness of your efforts?
5. What other organizations, private, public, or non-profit, are active in supporting or advocating for gender equality in your district? Do any work specifically on malaria?

The district-level key informant interviews will be complemented by focus group discussions in a selection of communities. Separate sessions will be held for women, men, adolescent boys, and adolescent girls. Each session will include with 6-10 participants, and will run for approximately two hours. Participants will be mobilized to participate through the MAPD regional offices' connections to district and sub-county representatives. The aim is to mobilize a cross-section of the community to maximize representation from different groups, including people living with disabilities and other vulnerable groups, people of varied ages and marital statuses, and members of female-headed households.

The sessions will employ adapted versions of the Harvard Analytic Framework tools to develop (1) an activity profile, and (2) an access and control profile, which can be found in Appendix D. These exercises will assist in identifying the different roles, responsibilities, and time use of women, men, adolescent boys and girls, with a focus on tasks related to malaria prevention and treatment, and who has access to and control over the resources needed for and produced by these activities.

This will be followed by a priority ranking exercise where participants will be asked to identify the greatest barriers to malaria prevention, diagnosis, and treatment. These will be ranked using pairwise comparisons whereby participants will choose the most important of the two identified barriers. This process will continue until all pairwise comparisons are complete and the barriers are ranked by how frequently they were identified as the most significant challenge to overcome.

Community focus groups will promote inclusive facilitation techniques and safe-spaces approaches to ensure that women, male and female youth (including adolescent girls), and persons with disabilities or representatives of other vulnerable groups, are able to actively engage in discussions. We will employ experienced Ugandan facilitators who are sensitive to cultural norms and the need to create a safe-space where participants have sufficient time and space to gather their thoughts and contribute to discussions. Expectations and intentions for the session will be clarified with participants, and informed consent obtained for audio recording and any photography during the sessions.

Guiding questions for the focus group discussions include:

1. Does the household have an ITN? Who uses it? How was it acquired?
2. What do you do when someone in the household has a fever?
3. How does the household decide to seek treatment? Who in the household makes this decision?
4. What resources are needed to access prevention and treatment? Who controls these resources?
5. What is the household division of labor for caring for ill members? Who takes ill family members to seek health care?

6. When treatment and medicines are procured, who controls their distribution/use within the household?
7. What are the greatest barriers to accessing prevention and treatment services? What is needed to overcome them?

18)

19) Phase 4: Analysis and recommendations

20) Data collection

An individual record will be created for each key informant interview and focus group, and will include details concerning the date, time and location of the meeting; names, titles, affiliations, and sex of participants; and other demographic data, as appropriate. Community focus group data collection will employ a standardized attendance sheet that will collect data on participants' age, marital status, head of the household, the number of children under five at home, and representation from vulnerable populations.

Interviews and focus groups will be recorded. Informed verbal consent will be sought from all interviewees and focus group participants before data collection begins. All interviews and focus groups will employ standardized interview guides (See Appendices D). A standardized data collection form for key informant interviews will be employed in Kampala, where use of a computer to take notes is feasible. Dedicated notebooks for notetaking will be used for data collection in the field. Note-takers will be given clear directions on expected note-taking techniques and level of detail. Translation services will be engaged, as required, for community focus groups discussions to assist with facilitation and note-taking.

21)

22) Data analysis and recommendation formulation

Following each interview and focus group, data will be reviewed and categorized by the factors outlined in the analytic framework (Table 1 and Table 2). As data accumulates, it will be reviewed to identify common themes, outlier perspectives, and illustrative examples or case studies with a focus on developing definitions of gender roles, and identifying opportunities and constraints for malaria prevention, diagnosis, treatment, and control.

A final summary of findings and recommendations will be prepared, according to the MAPD project components, namely:

1. Effective malaria prevention programs implemented in support of the National Malaria Control Strategy;
2. Effective malaria diagnosis and treatment activities implemented in support of the National Malaria Strategy; and
3. Capacity building of NMCP, RPMTs and DHMTs, to manage and sustain efficient malaria activities in focus districts.

For each project component, the following information will be provided based on the data analysis:

1. Opportunities
2. Constraints
3. Recommendations for action

Wherever possible, findings and recommendations will be provided separately for adolescent girls and vulnerable populations. An emphasis will be placed on identifying opportunities, constraints and recommendations to inform behavior change communication strategies. A

specific analysis of the potential role of gender-based violence in inhibiting prevention and treatment practices will be conducted. The analysis will also seek to identify any potentially negative and unintended consequences of proposed MAPD activities, or current malaria prevention and treatment practices, that may affect women's, men's, boys' and girls' ability to participate in or benefit from the project.

The final analysis report will include an executive summary of key findings and recommendations and chapters on the following: 1) methodology and constraints encountered; 2) findings; 3) recommendations. Report annexes will include gender analysis tools, bibliography, and list of persons interviewed/included in focus groups.

23)

24) Phase 5: Draft strategy

A draft gender integration strategy will be developed that includes practical and highly-actionable activities across the project as a whole, for each project component, and for all behavior change communication activities.

Team member roles and responsibilities

The team is composed of three members. The International Gender Equality Specialist will assume the role of team leader and be responsible for the workplan, methodology, tool development, desk review, final report writing, and draft gender equality strategy. She will be supported by the MAPD Project Gender Equality Advisor, and a short-term Gender Consultant, who will both provide local advice and expertise to inform the methodology, tool development, and data analysis; assist with the facilitation of key informant interviews and focus groups; and assist with notetaking including the provision of detailed summary notes after each interview/focus group.

During the first week in-country, team members will be trained on the use of the data collection tools and interview guides, providing them with the opportunity to practice their use and provide input to their content and design. Where translators are employed, study tools will be translated to the local language, and translators will be trained on their use.

Timeline

Activity	LoE	Jan.				Feb.				Mar.			
		9th	16th	23rd	30th	6th	13th	20th	25th	6th	13th	20th	27th
Workplan and tool development	1.5												
Desk review	2.5												
Key informant interviews (Kampala)	6												
Participatory field assessment	18												
Presentation to MAPD COP/staff	1												
Data analysis and report writing	6												
Submission of 1st draft report	n/a												

Gender strategy drafting	3												
Submission of 2nd draft report	2	Within one week of receiving comments from Banyan Global											
Revision and submission of final deliverables	1	Within one week of receiving comments from USAID and no later than March 31st, 2017											
Total	41												

Appendixes

25) Appendix A: Desk Review Reference List

Peer-reviewed literature

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26) Appendix B: Itinerary for Field Work

Date	Activity	Location	Contact	Notes
Fri. 13th Jan, 2017	Consultant's arrival in Kampala	n/a	Emmanuel /Transport Officer	Arrives at Entebbe Airport at 10:25 PM
Sat 14th Jan	Rest	Kampala	n/a	
Sunday 15th	Rest and prepare for first week activities	Kampala	Local phone number	
Mon 16th – Fri 20th	• Briefing from the COP	Kampala		Details of who to meet and

Date	Activity	Location	Contact	Notes
	• Going through the itinerary • Security briefing • Discussing research methodology, tools and team roles with local research assistant and the Gender and Youth Specialist			when will be agreed the week 16th when the appointments are being sought.
Tue 17th – Fri 20th	• Meet Kampala-based stakeholders and review literature	Kampala	Emmanuel /MAPD Kampala Region Coordinator	
Sat 21st	Data review/rest	Kampala	Local phone number	
Sun 22nd Jan	Travel to West Nile (Moyo)	Moyo District	Transport Officer	Stay in Moyo town
Mon 23rd	Conduct interviews with district and sub-county stakeholders	District HQs and selected sub-counties	MAPD Arua Region Coordinator	Will be based on final list of stakeholders
Tue 24th	Conduct community interviews and FGDs	Selected villages in Moyo	MAPD Arua Region Coordinator	
Wed 25th	Travel to Yumbe and Conduct interviews with district and sub-county stakeholders	District HQs and selected sub-counties	MAPD Arua Region Coordinator	Spend night in Yumbe
Thur. 26th	Conduct interviews and FGDs with community members	Selected villages in Yumbe.	MAPD Arua Region Coordinator	
Fri 27th	Travel back to Kampala	n/a	Transport Officer	
Sat 28th	Review field data/rest	Kampala		
Sun 29th	Travel to Masaka (set off at 2:30 PM)	n/a	Transport Officer	Stay in Masaka town
Mon 30th Jan	Travel to Bukomansimbi District and conduct interviews with district and sub-county stakeholders. Travel back and sleep in Masaka	District HQs and selected sub-counties	MAPD Masaka Region Coordinator	
Tue 31st Jan	Travel to Bukomansimbi District and conduct	Selected villages in Bukomansimbi.	MAPD Masaka Region Coordinator	

Date	Activity	Location	Contact	Notes
	community interviews and FGDs Travel back to Masaka			
Wed 1st Feb, 2017	Conduct interviews with Masaka district and sub-county stakeholders.	District HQs and selected sub-counties	MAPD Masaka Region Coordinator	
Thur. 2nd Feb	Conduct community interviews and FGDs	Selected villages in Masaka.	MAPD Masaka Region Coordinator	
Fri 3rd Feb	Conduct any remaining interviews in Masaka and Bukomansimbi districts	As required	MAPD Masaka Region Coordinator	
Sat 4th Feb	Travel back to Kampala and rest day – departure 7am	Kampala		
Sun 5th Feb	Travel to Fort Portal (Kabarole District)	n/a	Transport Officer	
Mon 6th Feb	Conduct interviews with Kabarole district and sub-county stakeholders.	District HQs and selected sub-counties	MAPD Kabarole Region Coordinator	
Tue 7th Feb	Conduct community interviews and FGDs	Selected villages in Kabarole.	MAPD Kabarole Region Coordinator	
Wed 8th Feb	Wrap up any final activities in Kabarole district Travel to Hoima	District HQs and selected sub-counties	MAPD Hoima Region Coordinator	
Thur. 9th Feb	Conduct interviews with Hoima district and sub-county stakeholders.	Selected villages in Hoima.	MAPD Hoima Region Coordinator	
Fri 10th Feb	Conduct community interviews and FGDs	Hoima	Transport Officer	
Sat 11th Feb	Travel back to Kampala	Kampala		
Sun 12th Feb	Review Field Data/rest day	Kampala		
Mon 13th Feb	Discuss findings and report outline with team; brief Youth Consultant.	Kampala	Gender and Youth Specialist	

Date	Activity	Location	Contact	Notes
Wed 15th Feb	Debrief-MAPD COP and other MAPD staff	n/a	Transport Officer	Debrief participants to be agreed with COP
Thurs. 16th Feb	Alison departs Uganda – 5:25pm Kenya Air			

27) Appendix C: List of Key Stakeholders

Category	Organization	Contact details	Methodology
National level			
Government	Ministry of Health, Malaria Lead, Gender Lead Ministry of Gender, Labour and Social Development, Health Lead National Women's Council Chairperson		Semi-structured interviews
Donors and multilateral organizations	WHO Malaria Lead, Gender Lead UNICEF Malaria Lead, Gender Lead UN Women, Health Lead UNFPA, Malaria lead USAID PMI Team		Semi-structured interviews
MAPD Project	USAID GE Advisor Project Chief of Party Project GE Advisor Project staff, partners Other Malaria Consortium staff		Semi-structured interviews
Civil society	Uganda Women's Organizations Network Center for Domestic Violence Prevention, Uganda National Health Consumers/Users Organization		Semi-structured interviews
Academia	School of Women and Gender studies, Makerere University		Semi-structured interviews
District level			
Health services	Hospital Superintendents Extended District Health Management Teams		Semi-structured interview Focus group
Political	Secretary for health, education and sanitation (political side) Vice Chairperson (in charge of gender – political side) Prominent religious leaders District Women's Council Police's Family Protection Unit		Semi-structured interviews
Gender	Senior Community Development Officers in Charge of Gender, Youth and Culture		Semi-structured interview
Sub-county level			
Health services	Health center in-charges Health Center Management Committees Health workers		Semi-structured interviews Focus groups
Gender	Community Development Officers (in charge of gender, youth and other vulnerable people)		Semi-structured interviews

Political	Secretary for health (from the political side). Women's council Vice chairperson		Semi-structured interviews
Community/household level			
Health services	Village health teams		Focus groups
Leadership	Chairperson, village local council (community gate keeper) Local leaders/opinion leaders (will be identified with the help of the Community Development Officers at sub-county level)		Semi-structured interviews
Households	Community members – women (10-12 people, varied ages) Community members – men (10-12 people, varied ages)		Focus groups

28) Appendix D: Interview Guides

29) Interview Guide A: Key Informant Interviews at National and District Levels

30) Introduction

Hello and thank you for meeting with us. My name is _____ and these are my colleagues: _____ and _____ . We work with the Malaria Action Program for Districts, or MAPD, implemented by the Malaria Consortium. We are conducting a study of the different ways that malaria affects women and men to identify how MAPD can best work with the Ministry of Health and districts to address their respective needs for malaria prevention, diagnosis and treatment. This information will be used to inform MAPD support to the National Malaria Control Program to strengthen malaria prevention, diagnosis, and treatment in Uganda. We would like your opinion on these issues because we value your knowledge and experience.

We would like to ask you a series of questions we have developed for key informant interviews. We will be taking notes on our discussion. We will also record the discussion because we don't want to miss any of your comments. We will keep a record of your names but specific comments will not be attributed to any individuals in our reporting. Knowing this information, are you willing to participate in this interview?

Can we first please begin with a roundtable of introductions where everyone can give their name and title, and how many years they have been working in malaria?

31) Institutional capacity (for project stakeholders[113] only)

1. Does your organization have a **gender policy**? How was it developed? What processes do you have in place to promote and monitor its implementation?

[113] Project stakeholders refers to organizations who are directly involved in MAPD implementation, including implementing partners, the National Malaria Control Program, and district, sub-country and community level health sector staff.

2. Does your organization have a **gender focal person or unit**? How are they involved in your malaria program design, implementation, monitoring and evaluation?
3. Have your staff undergone any **gender training**? Can you provide details on how the training was carried out? Is follow-on training provided?
4. How many **female staff members** do you have? How many are in senior leadership positions? Middle management?

32) Program activities (for project stakeholders[114] only)

5. How do you address the **different needs of women and men** through your malaria program? Adolescent boys and girls?
6. Do you collect **sex-disaggregated** data? For what indicators?
    a. Do you use the information to inform your program activities?
    b. Do you collect data on the impact of your program on women, men, boys and girls?
7. Do you conduct **behavior change communication** activities? Do you target different messages to men and women? Adolescent boys and girls?
    c. What information do you use to develop the messages?
8. Do you conduct **community outreach** activities? Do you have different strategies for reaching men and women? Adolescent boys and girls?
    d. What information do you use to develop your strategies?
9. Do you conduct **capacity building and training** activities? Do you include gender training? Can you share the training materials?
10. Do you conduct programming specifically targeted at **adolescent girls**? **People with disabilities**? **Refugees**? **People living with HIV/AIDS**? What information do you use to inform program development?
11. Has your organization ever undertaken a **gender analysis**? If so, how did it go? Are the results of this analysis available? When was it undertaken? How did it affect your project cycle? What was the follow up like?

33) Gender issues related to prevention and treatment (for all stakeholders)

12. How do the different **roles** and **daily activities** of men, women, boys and girls prevent or promote their risk of malaria infection? How do they facilitate or prevent them from accessing treatment in a timely manner?
13. Who in the household typically **decides** who will sleep under a bed net? Are certain household members prioritized? Where do adolescent girls and boys fall on the priority list?
14. Who in the household typically decides where and when to access health care when a household member is ill? Are certain household members prioritized? Where do adolescent girls and boys fall on the priority list?
15. Who in the household typically controls the **resources** needed for malaria prevention and treatment? How does this affect the decisions made? How are decisions affected when resources are limited?
16. The most recent data show that while 94 percent of households in Uganda have at least one bed net, only 75 percent of **pregnant women** sleep under a bed net. What factors contribute to this discrepancy? How can this proportion be improved?

[114] Project stakeholders refers to organizations who are directly involved in MAPD implementation, including implementing partners, the National Malaria Control Program, and district, sub-country and community level health sector staff.

17. According to recent research, only 45 percent of pregnant women receive two or more doses of intermittent preventive therapy for malaria (**IPTp**)? What factors contribute to this low percentage? How can it be improved?
18. Are there any challenges regarding **adherence** to or completion of artemisinin combination therapy (ACT)? For example, does a lack of resources to pay for treatment results in the use of lower doses, sharing of pills, or finishing the therapy early?
    a. Are certain household members prioritized for treatment?
19. (*Where IRS is conducted only*) How do households make decisions about **indoor residual spraying**? Who takes the decision? Who is responsible for preparing the house and overseeing the spraying?
20. How do men's and women's different **perceptions of the risk** posed by malaria affect their decisions on prevention and treatment for themselves and their families?
21. What role does **gender-based violence**[115] play in women's and men's decisions to protect themselves or their family from infection, or to seek treatment? Is it a factor for adolescent boys or girls?
22. Are there accepted **cultural norms or practices** that affect women's and men's vulnerability to infection, or women's and men's ability to access prevention and treatment services? For example, do cultural norms limit women's mobility, and therefore, ability to access malaria prevention and treatment services? Or do male cultural norms expect men to be "strong" and get over the infection themselves?
23. How does the **quality of health services** encourage or discourage women, men, boys and girls to access malaria prevention, diagnosis, and treatment services?
    b. Are there certain attitudes, behaviors or practices by health service providers and encourage or discourage men, women, boys and girls from seeking treatment?
    c. Do pregnant adolescents or unmarried women experience stigma and discrimination?
    d. Can language or illiteracy act as a barrier?
24. Are there any **national or local laws** that facilitate or prohibit women's and men's ability to access prevention and treatment services? Adolescent girls and boys?
    a. Defilement law?

    b. Mandatory HIV testing?

    c. Mandatory male presence at first ANC visit?
25. What challenges do **adolescent girls'** face to their ability to protect themselves from infection?
    e. Statistics show that only 62 percent of children aged 5-14 years sleep under a bed net? What contributes to this low percentage? How can it be improved?
    f. Do pregnant adolescent girls face particular challenges?
    g. How can the health system improve its ability to reach adolescent girls for malaria prevention, diagnosis and treatment?

[115] Includes violence in close relationships, sexual violence (including rape, sexual assault, harassment in public and private places), human trafficking (including slavery and sexual exploitation), and harmful practices (including child marriage, female genital mutilation, and assaults in the name of 'honor').

26. Are there any other **vulnerable populations**, such as the disabled, refugees, internally displaced populations, or people living with HIV/AIDS, who face particular challenges to their ability to protect themselves from infection?
    h. What is the health system currently doing to meet their needs?
    i. How can it improve prevention and treatment services for these populations?
27. How are women and men **impacted** when a household member becomes ill with malaria? Adolescent boys and girls?
28. What do you believe are men's and women's respective responsibilities' in protecting their families from malaria, and in seeking timely treatment?

34) Final questions

29. Do you have any reports or research assessments you believe would be valuable to our study? Both internal or external?
30. Can you recommend any local organizations with a focus on gender and malaria to meet with? Contact information?

Interview Guide B: Health Facility Management Teams, Health Workers, and Community Health Workers

35) Introduction

Hello and thank you for meeting with us. My name is _____ and these are my colleagues: _____ and _____ . We work with the Malaria Action Program for Districts, or MAPD, implemented by the Malaria Consortium. We are conducting a study of the different ways that malaria affects women and men to identify how MAPD can best work with the Ministry of Health and districts to address their respective needs for malaria prevention, diagnosis and treatment. This information will be used to inform MAPD support to the National Malaria Control Program to strengthen malaria prevention, diagnosis, and treatment in Uganda. We would like your opinion on these issues because we value your knowledge and experience.

We would like to ask you a series of questions we have developed for key informant interviews. We will be taking notes on our discussion. We will also record the discussion because we don't want to miss any of your comments. We will keep a record of your names but specific comments will not be attributed to any individuals in our reporting. Knowing this information, are you willing to participate in this interview?

Can we first please begin with a roundtable of introductions where everyone can give their name and title, and how many years they have been working in malaria?

36) Institutional capacity

1. Does your health facility have a **gender policy**? How was it developed? What processes do you have in place to promote and monitor its implementation?

2. Have your staff undergone any **gender training**? Can you provide details on how the training was carried out? Is follow-on training provided?

3. How many **female staff members** do you have? How many are in senior leadership positions? Middle management?

37) Gender issues

4. How do the different **roles** and **daily activities** of men, women, boys and girls prevent or promote their risk of malaria infection? How do they facilitate or prevent them from accessing treatment in a timely manner?
5. Who in the household typically **decides** who will sleep under a bed net? Are certain household members prioritized? Where do adolescent girls and boys fall on the priority list?
6. Who in the household typically decides where and when to access health care when a household member is ill? Are certain household members prioritized? Where do adolescent girls and boys fall on the priority list?
7. Who in the household typically controls the **resources** needed for malaria prevention and treatment? How does this affect the decisions made? How are decisions affected when resources are limited?
8. The most recent data show that while 94 percent of households in Uganda have at least one bed net, only 75 percent of **pregnant women** sleep under a bed net. What factors contribute to this discrepancy? How can this proportion be improved?
9. According to recent research, only 45 percent of pregnant women receive two or more doses of intermittent preventive therapy for malaria (**IPTp**)? What factors contribute to this low percentage? How can it be improved?
10. Are there any challenges regarding **adherence** to or completion of artemisinin combination therapy (ACT)? For example, does a lack of resources to pay for treatment results in the use of lower doses, sharing of pills, or finishing the therapy early?
    a. Are certain household members prioritized for treatment?
11. (*Where IRS is conducted only*) How do households make decisions about **indoor residual spraying**? Who takes the decision? Who is responsible for preparing the house and overseeing the spraying?
12. How do men's and women's different **perceptions of the risk** posed by malaria affect their decisions on prevention and treatment for themselves and their families?
13. What role does **gender-based violence**[116] play in women's and men's decisions to protect themselves or their family from infection, or to seek treatment? Is it a factor for adolescent boys or girls?
14. Are there accepted **cultural norms or practices** that affect women's and men's vulnerability to infection, or women's and men's ability to access prevention and treatment services? For example, do cultural norms limit women's mobility, and therefore, ability to access malaria prevention and treatment services? Or do male cultural norms expect men to be "strong" and get over the infection themselves?
15. How does the **quality of health services** encourage or discourage women, men, boys and girls to access malaria prevention, diagnosis, and treatment services?
    b. Are there certain attitudes, behaviors or practices by health service providers and encourage or discourage men, women, boys and girls from seeking treatment?

[116] Includes violence in close relationships, sexual violence (including rape, sexual assault, harassment in public and private places), human trafficking (including slavery and sexual exploitation), and harmful practices (including child marriage, female genital mutilation, and assaults in the name of 'honor').

c. Do pregnant adolescents or unmarried women experience stigma and discrimination?
d. Can language or illiteracy act as a barrier?

16. Are there any **national or local laws** that facilitate or prohibit women's and men's ability to access prevention and treatment services? Adolescent girls and boys?
    a. Defilement law?

    b. Mandatory HIV testing?

    c. Mandatory male presence at first ANC visit?
17. What challenges do **adolescent girls'** face to their ability to protect themselves from infection?
    e. Statistics show that only 62 percent of children aged 5-14 years sleep under a bed net? What contributes to this low percentage? How can it be improved?
    f. Do pregnant adolescent girls face particular challenges?
    g. How can the health system improve its ability to reach adolescent girls for malaria prevention, diagnosis and treatment?
18. Are there any other **vulnerable populations**, such as the people living with disabilities, refugees, internally displaced populations, or people living with HIV/AIDS, who face particular challenges to their ability to protect themselves from infection?
    h. What is the health system currently doing to meet their needs?
    i. How can it improve prevention and treatment services for these populations?
19. How are women and men **impacted** when a household member becomes ill with malaria? Adolescent boys and girls?

20. What do you believe are men's and women's respective responsibilities' in protecting their families from malaria, and in seeking timely treatment?

38) Interview Guide C: District- and Community-Level Political Representatives

39) Introduction

Hello and thank you for meeting with us. My name is _____ and these are my colleagues: _____ and _____ . We work with the Malaria Action Program for Districts, or MAPD, implemented by the Malaria Consortium. We are conducting a study of the different ways that malaria affects women and men to identify how MAPD can best work with the Ministry of Health and districts to address their respective needs for malaria prevention, diagnosis and treatment. This information will be used to inform MAPD support to the National Malaria Control Program to strengthen malaria prevention, diagnosis, and treatment in Uganda. We would like your opinion on these issues because we value your knowledge and experience.

We would like to ask you a series of questions we have developed for key informant interviews. We will be taking notes on our discussion. We will also record the discussion because we don't want to miss any of your comments. We will keep a record of your names but specific comments will not be attributed to any individuals in our reporting. Knowing this information, are you willing to participate in this interview?

40) Gender issues

1. How do the different **roles** and **daily activities** of men, women, boys, and girls prevent or promote their risk of malaria infection? How do they facilitate or prevent them from accessing treatment in a timely manner?

2. To your knowledge, how do households decide who will sleep under a **bed net**? Who takes the decision and what factors affect their decision? Are certain household members prioritized, such as children under five or pregnant women? What about adolescents?

3. To your knowledge, how do households decide **<u>where</u> and <u>when</u> to seek treatment** for malaria? Who takes the decision, and what factors affect their decision? Are certain household members prioritized for treatment?

4. (*where IRS is conducted*) Is **indoor residual spraying** conducted in your community? Do households choose to participate? Who takes the decision, and what factors affect their decision? How does IRS affect women compared to men?

5. What challenges do **adolescent girls'** face to their ability to protect themselves from infection?
    a. Statistics show that only 62 percent of children aged 5-14 years sleep under a bed net? What contributes to this low percentage? How can it be improved?
    b. Do pregnant adolescent girls face particular challenges?
    c. How can the health system improve its ability to reach adolescent girls for malaria prevention, diagnosis and treatment?

21. Are there any other **vulnerable populations**, such as the people living with disabilities, refugees, internally displaced populations, or people living with HIV/AIDS, who face particular challenges to their ability to protect themselves from infection?
    a. What is the health system currently doing to meet their needs?

b. How can it improve prevention and treatment services for these populations?

6. To what extent does **gender-based violence**[117] act as a barrier to malaria prevention and treatment in your community?

7. How are women **impacted** when a household member is ill with malaria, compared to men? Are there impacts on adolescent girls and boys?

8. Are there accepted **cultural norms or practices** in your community that affect women's and men's vulnerability to infection, or their ability to access prevention and treatment services? Adolescent boys and girls?

9. Are there any **national or local laws** that facilitate or prohibit women's and men's ability to access prevention and treatment services? Adolescent girls and boys?

    a. Defilement law?

    b. Mandatory HIV testing?

    c. Mandatory male presence at first ANC visit?

10. How do VHTs support your communities in malaria prevention and treatment?

11. What do you believe are men's and women's respective responsibilities' in protecting their families from malaria, and in seeking timely treatment?

[117] Includes violence in close relationships, sexual violence (including rape, sexual assault, harassment in public and private places), human trafficking (including slavery and sexual exploitation), and harmful practices (including child marriage, female genital mutilation, and assaults in the name of 'honor').

41) Community Focus Group Exercises

42) Introduction for focus group sessions

Hello and welcome. My name is _____ and these are my colleagues: _____ and _____. We work with the Malaria Action Program for Districts, or MAPD, implemented by the Malaria Consortium. We are conducting a study of the different ways that malaria affects women, men, girls, and boys to identify how MAPD can best address their respective needs for malaria prevention, diagnosis and treatment. This information will be used to help improve public health services. We would like your opinion on these issues because we value your knowledge and experience.

We will ask you some questions. Please know that there are no right or wrong answers to the questions we are about to ask. We expect that you will have different points of view and you are welcome to share your point of view even if it differs from what others have said. You don't have to respond to every question we ask. We are here to ask questions, listen, and make sure everyone has a chance to share. We're interested in hearing from each of you. So, if you're talking a lot, we may ask you to give others a chance. And if you aren't saying much, we may call on you. We just want to make sure we hear from all of you. Overall, the session should take 1-2 hours.

We will be taking notes to help us remember what is said. Because I do not speak _____ (insert language), _____ (insert interpreter's name) will help translate. We are also recording the discussion because we don't want to miss any of your comments. We will take pictures at several points during our session; If you do not wish to be photographed, please let us know. We will ask you your names, but no names will be included in any reports. While we would like to include your thoughts and perspectives in our study, we promise that we will not identify you in our reporting. Knowing this information, are you willing to participate in this discussion?

Let's begin by having each person in the room tell us your name, your job, who is the head of your household, and the ages of your children at home.

43) Exercise #1 – Activity profile

Target group: Men, women, adolescent girls, adolescent boys. Include a variety of ages and marital statuses, household incomes and structures. If possible include vulnerable populations from the community, including people living with disabilities, people living with HIV/AIDS, and refugees. This activity should be conducted in single-sex groups of not more than 5-10 participants. Separate focus groups with adolescent girls and adolescent boys should be organized to capture their unique circumstances.

Purpose: To gather critical information on the gender differences in activities related to malaria prevention, diagnosis and treatment at the household and community levels.

Steps:

1. Have a general, introductory discussion on malaria. Ask participants the following:

a. Are you concerned about malaria in your community?

b. How do you protect yourselves and your families from infection?

c. Do you have a bed net at home? Who sleeps under the bed net? Who decides who is given priority?

d. When someone has become ill with a fever, where and when do you decide to seek treatment? Who makes that decision?

e. Do disagreements about malaria prevention and treatment ever lead to violence in the home? What are the main causes?

f. What services do VHTs provide you for malaria prevention and treatment? Are they helpful?

g. How do the quality of services at health facilities affect your decision to seek care?

h. (*for youth only*) Are you aware of youth-friendly services at health facilities? Do you access them?

i. (*for youth only*) How does the defilement law affect your decisions to attend health facilities?

2. On a flip chart, draw a table similar to the one shown below. Ask participants to brainstorm activities related to malaria prevention and treatment, e.g. caring for sick household members, traveling to the health facility, obtaining transport, providing food and water, hanging the bed net, etc. Have participants work together to list these in the first column on the flip chart. You may wish to place the flip chart of the floor in the center of the group so that they can complete the table themselves.

3. Ask participants to identify which activities are done by men and/or women. Ask them to mark these activities in the second through fifth columns using Xs to indicate the intensity of men's, women's, boys' and girls' participation in the activity. In the table below, XXX indicates it is a task exclusive to either men or women. XX indicates that mostly men or women undertake that task. A single X indicates that both men and women undertake the task.

4. Where division of labor is strict, ask why only one gender is involved in this task. Then ask whether decisions regarding how the task is carried out are made by the person doing the task.

5. At the end of the exercise there will be a chart that looks something like the one below. The exercise should then be repeated with each focus group and the responses should be compared.

Activity	**Women**	**Men**	**Boys**	**Girls**
Care for sick household members	XXX			X

Travel to health clinic	XXX			X
Prepare food	XX			X

44) Exercise #2 – Access and Control Profile

Target group: Same as Exercise #1

Purpose: To list what resources people use to carry out the tasks identified in the Activity Profile. It indicates whether women, men, girls and boys have access to resources, and who controls their use, for malaria prevention and treatment.

Steps:

1. On a flip chart, draw a table similar to the one shown below. Ask participants to reflect on the activities identified in Exercise #1, and to brainstorm the resources needed to undertake those activities. Have the participants work together to list these in the first column on the flip chart.

2. Ask participants to identify which resources are accessed by women, men, boys and girls. Then ask them to identify who controls the resources (women, men, boys, girls, some, or all). XXX indicates it is a resource exclusively accessed or controlled by either men or women. XX indicates that mostly men or women access or control the resource. A single X indicates that both men and women have access to or control of the resource.

3. At the end of the exercise there will be a chart that looks something like the one below. The exercise should then be repeated with the other focus groups and the responses should be compared.

	Access				**Control**			
Resource	**Women**	**Men**	**Boys**	**Girls**	**Women**	**Men**	**Boys**	**Girls**
Bed net to sleep under	X	X			X	XX		
Transportation to health center	XX	X				XXX		
Funds to pay for medication	X	XX				XXX		

45) Exercise #3 - Priority ranking

Target group: Same as Exercises #1, 2

Purpose: To assess and analyse participants' priorities for malaria prevention and treatment, and to highlight where constraints differ between women and men and where they overlap.

Steps:

1. Ask participants to think about constraints they encounter in preventing malaria infection in their household, and in accessing treatment. Then ask them to list 4-5 problems that are most significant to them in any order. The focus group facilitator may supplement with an additional one or two constraints that were identified through the desk review and key informant interviews. List all constraints on a flip chart.

2. Then compare the constraints in pairs by asking participants to vote on which problem is most important. After each pairing, ask participants to explain their choices and provide further feedback. Continue making pairwise comparisons until all possible combinations are used.

3. Count the number of times each problem was selected and rank the problems by priority. The 3-4 problems selected the highest number of times will be viewed as priority problems for the group.

4. Ask participants to brainstorm what is needed to overcome these constraints.

5. The exercise should then be repeated with the other focus groups and the responses should be compared.

APPENDIX B

MAPD Gender Analysis Stakeholders met (excluding local council I (village level), VHT and community level FGDs)

No	NAME	Sex (M/F)	Age bracket **a**=(10 – 14); **b**=(15 – 19); **c**=(20 – 24); **d**=(25 – 30); **e**= (31+)	District	TITLE	ORGANIZATION	PHONE NUMBER
1	KIRIGWAJJO MOSES	M	e	KAMPALA	P/O Training	UNHCO	0772324478
2	KAITIRITMBA ROBINAH	F	e	KAMPALA	ED	UNHCO	0772638457
3	MABLE KUKUNDA	F	e	KAMPALA	ADVOCACY OFFICER	UNHCO	0787586660
4	NABUKENYA MARIAM	F	e	KAMPALA	BCC-Specialist	MOH/NMCP	0785985065
5	RUKIA NAKAMATTE	F	e	KAMPALA	BCC-Specialist	MOH/NMCP	0774063888
6	PAUL MBAKA	M	e	KAMPALA	AHO Focal Point	WHO	0755850171
7	BAYO FATUNMBI	M	e	KAMPALA	MAL Team Leader	WHO	0789930307
8	TUSHABE BASIL	M	e	KAMPALA	ED	CDFU	0772409746
9	GORETT KOMUREMBO	F	e	KAMPALA	Project Coordinator	CDFU	0776535433

10	EBERU ISAAC	M	d	MOYO	Parish Chief	Moyo Sub County	0775980657
11	ABIMA JOHNNY	M	e	MOYO	CDO	Moyo Sub County	0772990202
12	ARYAMA PATRICK	M	e	MOYO	Ag. SAS	Moyo Sub County	0771641132
13	BUNI DANIEL	M	e	MOYO	LC III CHAIRPERSON	Moyo Sub County	0782541555
14	OGWIDO ISSE JOHN	M	e	MOYO	GISO/OPINION LEADER	Moyo Sub County	0782803803
15	ASIENZO LAWRENCE	F	E	MOYO	SAA	Moyo Sub County	0772889906
16	DR ARIKE JOSEPH	M	E	MOYO	MS	Moyo Hospital	0782021884
17	LULU NATAL	M	E	MOYO	HRO	MOYO	0779213275
18	MUNDUYO MICHEAL	M	E	MOYO	S/O	DHO's OFFICE	0772892968
19	AMOKO STEPHEN	M	E	MOYO	PHI/MFP	DHO	0772994245
20	LOMURECHU DOMINIC	M	E	MOYO	HI/ Ag.DHE	MDLG/DHO	0782208894
21	ADRANA MICHEAL	M	E	MOYO	ADHO/MCH	MDLG	0772694895
22	EDEMA MICHEAL N	M	E	MOYO	VCO/NTDFP	MDLG	0782835043
23	DR IDI FRANK	M	E	MOYO	DHO	MDLG	0772832820

24	OGWOK JOSHUA	M	D	MOYO	BIOSTATISTICIAN	MDLG	0755557278
25	ASIYO DRALODA	F	E	MOYO	PNO	Moyo Hospital	0782724218
26	DR IRANYA RICHARD NEWTON	M	D	MOYO	INCHARGE OBONGI HSD	MDLG	0788403970
27	OKUTE OBAWOK	M	E	MOYO	DCCT	MDLG	0773992919
28	NGOPIA BETTY	F	C	MOYO	SECRETARY	HUMC	0778518677
29	ANENO SARAH EVAREST	F	C	MOYO	TEACHER REPRESENTATIVE		0787207157
30	OPILA CHARLIE	M	E	MOYO	CHAIRPERSON	HUMC	0782844012
31	ASIENZO.S.GRACE	F	E	MOYO	STAFF REPRESENTATIVE	HUMC	0782714474
32	KELIKI MARGRET	F	E	MOYO	STAFF	HUMC	0781923188
33	ABARU EMILY	F	D	MOYO	ENROLLED COMPREHENSIVE NURSE	LOGOBA H/C	0775089472
34	ALUMA FRANCO	M	C	MOYO	ATTACHMENT STUDENT	LOGOBA H/C	0786660372
35	MUZOLA STELLA	F	D	MOYO	ENROLLED NURSE	LOGOBA H/C	0777713894

36	IGGA RICHARD	M	E	MOYO	LABORATORY ASSISTANT	LOGOBA H/C	0772898875
37	KAREGA HERBERT	M	B	MOYO	STUDENT NURSE	LOGOBA H/C	0787276441
38	TABAM DAVID	M	D	MOYO	LABORATORY ASSISTANT	LOGOBA H/C	0775934183
39	BUA MARY A	F	E	YUMBE	NURSING OFFICER	GOVERNMENT	0775599022
40	ACHIGA YAHAYA	M	E	YUMBE	H/W	GOVERNMENT	0784656336
41	MOROGA ABASI	M	E	YUMBE	HUMC	GOVERNMENT	0777624301
42	MAWA KALFAN MAHAGIN	M	E	YUMBE	H/W	GOVERNMENT	0782034590
43	ALIRU ZAITUN	F	E	YUMBE	H/W	GOVERNMENT	0777088252
44	IMBIRA ZALIKA	F	D	YUMBE	H/W	GOVERNMENT	0785514919
45	DRALERU CHARITY	F	C	YUMBE	H/W	UNICEF	0771462554
46	JOSIGA ABDU MUSA	M	D	YUMBE	HUMC	GOVERNMENT	0775406284
47	AMVIKO AGNES	F	E	YUMBE	R/MW	KOCHI H/C III	0782994691
48	EYOKU EMMANUEL	F	E	YUMBE	R/N	GOBORO H/C II	0772454988
49	DRIWALE MICHEAL	M	D	YUMBE	COUNSELLOR	KOCHI H/C III	0789642259

50	BAY RASHIDA A	M	E	YUMBE	C/P HUMC	NOOR H/C II	0788713740
51	AMAKU AHUMAD	M	E	YUMBE	HUMC STAFF	KOCHI	0775938060
52	ADIGA STEPHEN	M	E	YUMBE	H/W	LOKPE H/C II	0775179405
53	ZAKIA YASSIN	F	D	YUMBE	H/W	LOKPE H/C II	0774505297
54	ABALE ALLI SWIAB	M	E	YUMBE	C/P HUMC	GOBORO H/C	0782832256
55	ANDAMA PATRICK	M	E	YUMBE	HEALTH ASSISTANT	OMBACH H/C II	0777440855
56	ANGOLIGA AHMED	M	D	YUMBE	ENROLLED NURSE	LOKPE H/C II	0775178171
57	BAKOLE SWADIK	M	E	YUMBE	W/M	KOCHI H/C III	0777624306
58	AWUZU SUNDAY	M	D	YUMBE	ECN	LOKPE H/C II	0779743186
59	DRADRIGA DRAN AROWA	M	E	YUMBE	SEC. SOCIAL SERVICE	KOCHI SUB COUNTY	0773264152
60	DAWA ZAINABU	F	E	YUMBE	WOMAN/P	KOCHI SUB COUNTY	0786509004
61	OBULEJO ALLI OMAR	M	E	YUMBE	LC III VICE C/P KOCHI	KOCHI SUB COUNTY	0774431220
62	AYIROKU JUDITH	F	E	YUMBE	SUB COUNTY CHIEF	KOCHI SUB COUNTY	0774501662
63	APANGU W PALESON	M	E	YUMBE	CDO-KOCHI	KOCHI SUB COUNTY	0772975261

64	RASHID KAWAWA GODSON	M	E	YUMBE	LC III C/P	KOCHI SUB COUNTY	0782407741
65	BALO ZAITUN	F	D	YUMBE	PARISH CHIEF	KOCHI SUB COUNTY	0781484741
66	MAWA MARIO	M	E	YUMBE	CLEANER	KOCHI SUB COUNTY	
67	REV. CAN AGO TITUS PATRICK	M	E	YUMBE	RELIGIOUS LEADER	C.O.U	0774538886
68	ALAJO JANG	F	E	YUMBE	SEC. SOCIAL SERVICE	YDLG	0772867793
69	ANIKU SCUDI	M	E	YUMBE	LC V VICE CHAIRMAN	YDLG	0772892927
70	ALAMIGA HARUNA	M	E	YUMBE	SEC.	YDLG	0782938143
71	TABAN YASSIN	M	E	YUMBE	LC I C/P	YDLG	0782388650
72	ANGUKO A MOSEKA	F	E	YUMBE	C/P WC YUMBE	YDLG	0785045728
73	ASP. DRAGUDU IGNATIUS	M	E	YUMBE	COMMUNITY LIASON OFFICER	UGANDA POLICE	0784006282
74	DR YAYI ALFRED	M	E	YUMBE	DISTRICT HEALTH OFFICER	YDLG	0772535450
75	MADRARA GEORGE	M	E	YUMBE	HEALTH INSPECTOR	YDLG	0782429202
76	MAKKAH BINT ABAS	F	E	YUMBE	AIMO	YDLG	0773991699

77	ORODRIYO DAISY	F	E	YUMBE	Ag. ADHO/MCH/N	YDLG	0772565077
78	OJJO ZUBEIR	M	E	YUMBE	ADHO-EN	YDLG	0772991433
79	TABU ADBULAI	M	E	YUMBE	Ass. DHO	YDLG	0773994217
80	ADIGA RICHARDO	M	E	YUMBE	ASSISTANT HEALTH EDUCATOR	YDLG	0774990222
81	DRICHIRU CHRISTINE	F	D	YUMBE	HRO-HEALTH	YDLG	0773864740
82	DR SHAFFI HAMUZA	M	E	YUMBE	RDO-HEALTH	YDLG	0788704045
83	NANSAMBA FARIDAH	F	E	YUMBE	BIOSTATISTICIAN	YDLG	0782919707
84	AINEMANI AUSTIN	M	E	YUMBE	DCDO	YDLG	0712035003
85	KATOTOROMA JOHN	M	E	BUKOMANSIMBI	CAO	BDLG	0772361860
86	NZANZU REMEGIO	M	E	BUKOMANSIMBI	DHI	BDLG	0755199066
87	NABUKEERA FLORENCE	F	E	BUKOMANSIMBI	NURSING OFFICER	BUKOMANSIMBI	0787721656
88	WALUSIMBI RICHARD	M	E	BUKOMANSIMBI	DHE	BDLG	0752235752
89	BUNOMUGISHA FRED ABRAHAM	M	D	BUKOMANSIMBI	DATA FOCAL PERSON	BDLG	0754812443
90	BWAMBALE ENOS	M	D	BUKOMANSIMBI	HEALTH INSPECTOR	BDLG	0773114134

91	MUWONGE RICHARD	M	E	BUKOMANSIMBI	DLRP	BDLG	0703377238
92	NAZZIWA MARJORIE	F	E	BUKOMANSIMBI	DEPI FOCAL PERSON	BDLG	0774750363
93	DR KATO ALFRED T	M	E	BUKOMANSIMBI	Ag. DHO	BDLG	0783666609
94	KATONGOLE G WILLIAM	M	D	BUKOMANSIMBI	BIOSTATISTICIAN	BDLG	0779687850
95	LULINDA YIGA L	M	E	BUKOMANSIMBI	SPSWO	COMMUNITY	0782427968
96	MAYAMBALA JACKSON	M	D	BUKOMANSIMBI	CLINICAL OFFICER	KITAASA H/C III	0775930066
97	Sr. JULIET NAMMANDE	F	E	BUKOMANSIMBI	LAB ASST.	KITAASA H/C III	0772366861
98	Sr. SCHOLASTICA NAKAKAWA	F	E	BUKOMANSIMBI	RN/M ADMIN	KITAASA H/C III	0775775396
99	KAMBABAZI FAUSTA	F	C	BUKOMANSIMBI	MIDWIFE	KITAASA H/C III	0772368198
100	NABIRYE MARIAM	F	C	BUKOMANSIMBI	NURSE	KITAASA H/C III	0775901012
101	DONGOI ROBERT	M	C	BUKOMANSIMBI	LAB ASSISTANT	KITAASA H/C III	0789448468
102	NAKIBUNGO JUDITH	F	D	BUKOMANSIMBI	COMPREHENSIVE NURSE	KITAASA H/C III	0789967352
103	NALUTAAYA PAULINE	F	E	BUKOMANSIMBI	IN CHARE	KISOJJO H/C II	0754680185
104	NABUKEERA CAROLINE	F	E	BUKOMANSIMBI	ENROLLED NURSE	KISOJJO H/C II	0774115266

105	NAMAYENGO PROSCOVIA	F	C	BUKOMANSIMBI	ENROLLED COMPREHENSIVE NURSE	KISOJJO H/C II	0783626608
106	NAMUDDU LYDIA	F	E	MASAKA	NURSING OFFICER	KYAMUYIMBWA H/C II	0782303120
107	NAKAAYI JOSEPHINE	F	D	MASAKA	NURSING ASSISTANT	KYAMUYIMBWA H/C II	0751916281
108	BAKUSAGGIRA NOELLA	F	E	MASAKA	STAFF	KYAMUYIMBWA H/C II	0777029614
109	KALIGO A	M	E	MASAKA	C/PERSON	KYAMUYIMBWA	0757972833
110	NANSIMBI JULIET	F	E	MASAKA	N/A	KYAMUYIMBWA H/C II	0773133225
111	WALUGEMBE JAMIL	M	E	MASAKA	C/ PERSON LC II	KYAMUYIMBWA	0701340645
112	SSETUBA MARIA	F	E	MASAKA	VICE C/PERSON	KYAMUYIMBWA	0784423769
113	DDUMBA GRACEN	F	E	MASAKA	C/ PERSON LC II	KYAMUYIMBWA	0753239404
114	MAYANJA GORDON	M	E	MASAKA	SEC. FOR HEALTH	MDLG	0702006009
115	REV. CANON GASTER NSEREKO	M	E	MASAKA	PRIEST	C.O.U WEST BUGANDA	0782315250
116	SHEIKH SULAIT SENTONGO	M	E	MASAKA	DISTRICT KHADD	MASAKA MUSLIM COUNCIL	0702434130
117	MUGERWA NOELINE SPERITOH	F	C	MASAKA	DISTRICT WOMAN COUNCILLOR	MDLG	0755313928

118	KISEKKA JANAT	F	E	MASAKA	VICE CHAIRPERSON	MASAKA	0703151719
119	SSEDDAGALA JOSEPH	M	D	MASAKA	JMS MEDICAL REPRESENTATIVE/ DHO	JMS/DHO	0758535595
120	MAJWALA DENIS LUKANGA	M	E	MASAKA	DIVISION C/PERSON KATWE BUTEGO	MASAKA MUNICIPAL COUNCIL	0752851186
121	BUYONDO DENIS	M	E	MASAKA	COUNCILLOR K/B	MASAKA MUNICIPAL COUNCIL	0706135094
122	NAMPIJJA FLORENCE	F	D	MASAKA	YOUTH COUNCILLOR	MASAKA MUNICIPAL COUNCIL	0755586210
123	KIZZA WILSON	M	E	MASAKA	SENIOR CDO	MASAKA MC	0703984442
124	NANKUMBA MODESTER	F	D	MASAKA	COUNCILLOR	MASAKA MC	0701620624
125	WANYAMA KATE	F	E	MASAKA	COUNCILLOR PWD	K/B	0758122851
126	NAKABUYE ANNET	F	E	MASAKA	COUNCILLOR	K/B	0752541199
127	AIP ARIA ALICE	F	E	MASAKA	O/C CFPU	POLICE	0756423253
128	NAMUGAMBE LILIAN MUSISI	F	E	MASAKA	DISTRICT COMMUNITY	MDLG	0772449788

					DEVELOPENT OFFICE		
129	KASEKENDE JOSEPH	M	E	MASAKA	EMTCT FP	MDLG	0782961995
130	BATENGA B KIYINGI	F	E	MASAKA	ADHO/MCH	MDLG	0782498599
131	NAJJUUKO ANGELLA	F	D	MASAKA	DISTRICT MALARIA FOCAL PERSON	MDLG	0702421025
132	DAUDA K	M	E	MASAKA	DHI	MDLG	0772688441
133	MAGOBA AKIA	F	E	MASAKA	AHE	MDLG	0757646037
134	KAKANDE DINAH	F	E	MASAKA	DHE	MDLG	0704399270
135	KISEKKA ISSACHAN	M	E	MASAKA	HMIS FP	MDLG	0772638211
136	NAKATO CHRISTINE	F	E	MASAKA	LOGISTICS ASST.	MDLG	0752622063
137	NAMULEMA SOPHIA	F	D	MASAKA	DISTRICT LAB FP	MDLG	0703500481
138	SSERUYANGE MARTINE	M	D	MASAKA	BIOSTATISTICIAN	MDLG	0703810664
139	OKOT PETER	M	E	MASAKA	DMMS/DDI	MDLG	0703261631
140	TUKAHIMA ANNA	F	E	KABAROLE	MFP	BUKULA H/C	0702471929
141	ALIMANYA BETTY	F	E	KABAROLE	DHT	KDIG	0704586040

142	DR OBETI RICHARD	M	E	KABAROLE	C/O DHO	KDLG	0774979417
143	MUGISA TONNY	M	E	KABAROLE	SCO	KDLG	0702373505
144	MAANIMAKE ELIZABETH	F	E	KABAROLE	ADHO	KDLG	0772665338
145	DR TUMWEBASE MATHIAS	M	E	KABAROLE	DHT	KDLG	0700253048
146	ASABA PAUL	M	D	KABAROLE	DHT	KDLG	0779882664
147	KEMIGABO CATHERINE	F	E	KABAROLE	DHE	KDLG	0772988609
148	KYARISIIMA ALISON	F	E	KABAROLE	HMIS FP	KDLG	0772413841
149	MUSINGUZI VICTOR	M	E	KABAROLE	DTLS	KDLG	0772389770
150	KAAHWA RUSOKE JR	F	E	KABAROLE	SCO	KDLG	0782149070
151	BYARUHANGA CHRIS	M	D	KABAROLE	BIOSTATISTICIAN	KDLG	0774734475
152	MONDAY CHRISTOPHER	M	E	KABAROLE	SCDO	KDLG	0783419711
153	AGONDEZE BETTY	F	E	KABAROLE	CLINICAL OFFICER	KAGOTE H/C III	0782390103
154	NAULA SCOVIA	F	D	KABAROLE	ENROLLED MIDWIFE	KAGOTE H/C III	0773491682
155	KAJOBE EVERLYN	F	D	KABAROLE	NURSING ASSISTANT	KAGOTE H/C III	0787911874

156	KUNIHINA WAY	F	E	KABAROLE	NURSING ASSISTANT	KAGOTE H/C III	0782817607
157	SGT. NAMYALO HADIJAH	F	E	KABAROLE	O/C CFPU	POLICE	0772993746
158	SGT. MUGYENYI DAN	M	E	KABAROLE	CFPU	POLICE	0772872227
159	RURABUHINGA RICHARD	M	E	KABAROLE	SEC. FOR HEALTH	KDLG	0772553187
160	SHEIKH HABIIB MANDE	M	E	KABAROLE	INTER-RELIGIOUS COUNCIL-RWENZURU	UMSC TOORO	0772495463
161	RUTA GIDION	M	E	KABAROLE	C/PERSON GENDER, D/COUNCILLOR	KDLG	0701553640
162	KOOJO MATTHEW	M	D	KABAROLE	D/COUNCILOR KIKO T/C	COUNCILLOR KIKO	0783855987
163	MUHUMUZA RICHARD	M	E	KABAROLE	L/C III WEST DIVISION	FPMC	0772858451
164	MUGWANEZA A ALLEN	F	E	KABAROLE	SEC. FOR GENDER	FPMC	0782129146
165	RUSOKE J BOSCO	M	E	KABAROLE	SEN. ASST. TOWN CLERK	FPMC	0702295778
166	KOBUGABE MARY	F	E	KABAROLE	FOR CDO WEST DIVISION	FPMC	0701377063
167	KATUSHABE JUDITH	F	E	HOIMA	MCO	KIGOROBYA H/C IV	0774079020
168	BAGONZA GRACE	F	E	HOIMA	N/O	KIGOROBYA H/C IV	0752649733

169	BUTHALHA ROBERT	M	E	HOIMA	MLA	KIGOROBYA HC/ IV	0779416316
170	ASABA GRACE	F	E	HOIMA	N/A	KIGOROBYA H/C IV	0782646271
171	ALEZUYO OLOLA	F	E	HOIMA	HEALTH ASSISTANT	KIGOROBYA H/C IV	0773646363
172	BASEMERA JOSELINE	F	D	HOIMA	E/N	KIGOROBYA H/C IV	0788462034
173	ASABA JOVIA	F	D	HOIMA	N/O	KIGOROBYA H/C IV	0775478124
174	KAAHWA DORCUS	F	D	HOIMA	E/M	KIGOROBYA H/C IV	0777826604
175	MUZAHUKE JOHN	M	D	HOIMA	ASKARI	KIGOROBYA H/C IV	0783498155
176	ANDIA DAVID	M		HOIMA	SCO	KIGOROBYA H/C IV	0772696091
177	ASUMA SAMUEL	M	E	HOIMA	ASKARI	KIGOROBYA H/C IV	0779725737
178	NYAMAGENYI ANTONINA	F	E	HOIMA	HUMC MEMBER	KIGOROBYA H/C IV	0783486888
179	MULINDWA JOHN	M	E	HOIMA	C/PERSON LC I	HDLG	0779404338
180	BIRAHI JACK	M	E	HOIMA	HUMC MEMBER	KIGOROBYA H/C IV	0775934909
181	GABURA YOSAMU	M	E	HOIMA	CHAIRMAN HC	KIGOROBYA H/C IV	0782938588
182	BERNADETTE PLAN	F	E	HOIMA	SEC. FINANCE	HDLG	0772473941

183	MUNGURYEK EVERCE	F	D	HOIMA	SEC. GENDER	HDLG	0775061057
184	BYARUGABA SHADRACH	M	E	HOIMA	DISTRICT T.B/LEPROSY FP	HDLG	0774117067
185	MIREMBE REBECCA M	F	E	HOIMA	PROJECT COORDINATOR HOIMA MNCH	WORLD VISION	0752883911
186	ROBERT R	M	E	HOIMA	ASSISTANT PROGRAMMES OFFICER	ACTADE	0772360167
187	TIMBIGAMBA DAVID	M	E	HOIMA	DISTRICT DRUG INSPECTOR	HDLG	0782334003
188	BYENUME FREDRICK	M	E	HOIMA	DHI	HDLG	0772495189
189	MUGANO FELIX F	M	E	HOIMA	PRINCIPAL HEALTH INSPECTOR	HOIMA MC	0772513574
190	STANLEY MBOMEKI	M	E	HOIMA		HDLG	0772574864
191	MULINDAMBENA MUGENYI	M	E	HOIMA	SEC. HEALTH	HDLG	0772254502
192	BANAGE JANE	F	E	HOIMA	AHE	HDLG	0772683560
193	ASIIMWE PATRICIA	F	E	HOIMA	HMIS FP	HDLG	0775613213
194	BARUNGI WILSON	M	E	HOIMA	VCO	HDLG	0774867781
195	KUGONZA FRED	M	E	HOIMA	DSFP	HDLG	0777828187

196	JUMBA JOHN	M	E	HOIMA	HMIS FP	HDLG	0777644092
197	MUHUMUZA AUGUSTINE	M	E	HOIMA	DHE	HDLG	0776019902
198	KWEBIIHA SOLOMON	M	E	HOIMA	AHE	HDLG	0772553607
199	DR TUMUSIIME LAWRENCE	M	D	HOIMA	BUGALYA HSD I/C	HDLG	0779712458
200	DR ASABA GERALD	M	E	HOIMA	BUHAGUZI HSD I/C	HDLG	0788391158
201	RUBANGA MOSES	M	E	HOIMA	LOGISITCS FOCAL PERSON	HDLG	0772877040
202	KWIKIRIZA RICHARD	M	D	HOIMA	CLINICAL OFFICER	KAPAAPI H/C III	0774946525
203	LEONARD B	M	D	HOIMA	STAFF	KAPAAPI H/C III	0785812649
204	BENJAMIN B	M	E	HOIMA	C/O BOARD		0777616104
205	NYENBWOHA S MATONGO	M	E	HOIMA	STAFF	KAPAAPI H/C III	0782693812
206	ALINAITWE WINFRED	F	E	HOIMA	N/A	KAPAAPI H/C III	0779408000
207	ALITUHA ZAHARA	F	D	HOIMA	E/N	KAPAAPI H/C III	0779129307
208	BAYO RICHARD	M	D	HOIMA	H/A	KAPAAPI H/C III	0782431208
209	KAMAYONYA ROBINAH	F	E	HOIMA	E/M	KAPAAPI H/C III	0782012392

210	BALIKAGIRA BENEDICT	M	E	HOIMA	STAFF	KAPAAPI H/C III	0782393538
211	MUGISHA NKUBA	M	E	HOIMA	BOARD MEMBER	KAPAAPI H/C III	0774073143