

A GUIDE

TO GENDER
AND MALARIA
RESOURCES

FOREWORD



This Guide to Gender and Malaria Resources was compiled and written by Kvinnoforum and The Roll Back Malaria Partnership Secretariat as part of the project Raising Women's Voices on Malaria funded by the Swedish International Development Cooperation Agency (Sida), <http://sida.org/>. The project partners are Kvinnoforum, The Roll Back Malaria Partnership Secretariat, Femmes Africa Solidarité and the Multilateral Initiative on Malaria. See the back inside cover for more information on each of these organizations.

For further information and documentation on the project Raising Women's Voices on Malaria, please visit <http://www.rollbackmalaria.org/globaladvocacy/networks.html>. This site includes electronic versions of a "Framework for Action 2006-2008" (English and French), meeting reports, presentations and press releases.



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men's access to malaria prevention methods and treatment. For people living with HIV/AIDS, malaria presents additional gendered vulnerabilities.

Consequently, a gender approach that analyses the impact of gendered norms and behaviour on vulnerability to malaria, as well as the gender-related dynamics of health seeking behaviour, is essential in the fight against malaria.



Despite prevention and control efforts, malaria remains a leading cause of morbidity and mortality globally resulting in more than 300 million acute illnesses and at least 1 million deaths annually. As it is difficult to estimate how many malaria cases are treated at home and receive no proper post-mortem diagnosis in the case of death - many malaria cases go unreported.

Although malaria affects both men and women, vulnerability to malaria and access to treatment is often different for women and men and is greatly influenced by gender roles and issues. Women, particularly pregnant women, and children are at the greatest risk of contracting malaria in both high and low malaria endemic areas for both biological and social reasons. The unequal balance of power between men and women and inequitable access to health care and financial resources as a result of gender and other social inequalities paves the way for women's vulnerability to malaria and other infectious diseases, as well as affecting their ability to respond appropriately and access prevention and treatment efforts where available. In addition, socially determined gender norms often require women to undertake a 'double burden' of providing care to sick family members in addition to other household and income earning duties. As men are also vulnerable to contracting malaria through occupational exposure, malaria programmes need to work on improving

This Guide to Gender and Malaria Resources is a result of the work being done by the Global Gender and Malaria Network. The network members are making the case for integrating gender perspectives into every level of malaria control - policy, research and implementation - both through collaborative initiatives and via their ongoing day-to-day work.

This advocacy-focused network draws on the experience, positioning and strength of its individual members to mobilise knowledge and resources and to energise strategies for identifying and addressing the gender dimensions of malaria. This resource serves as a reference for the existing network and an advocacy tool that can be used to expand the network and further its goals. I sincerely hope it will promote future work in this area.

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CHAPTER 1

INTRODUCTION

WHY A GUIDE ON GENDER AND MALARIA RESOURCES?

Malaria is a debilitating and deadly disease that affects 40% of the world's population, is the cause of between 1 to 3 million deaths every year and results in untold suffering and human misery around the world – predominantly in Africa. In more than 40 countries across the continent, malaria takes its daily toll - 3000 young children die each day from a disease which is preventable, controllable and treatable.

Malaria can affect all segments of the population, but children under five years of age, pregnant women, people living in emergency situations and people living with HIV/AIDS are particularly vulnerable to this devastating disease. Malaria during pregnancy can result in maternal mortality and severe anemia and can lead to adverse birth outcomes such as spontaneous abortion, stillbirth, low-birth-weight infants and poor infant survival and development. Malaria exacerbates poverty in the households, the communities and the nations where it holds sway.

Both social and biological factors contribute to the different impact malaria has on women and men, both as sufferers, and as principal caregivers. Therefore, a gender perspective is essential for substantial reduction and elimination of malaria.



WOMEN'S VOICES MUST BE LISTENED TO

While efforts to combat malaria have ramped up in recent years, the global response to the disease has inadequately addressed the social and biological situation of women. The Global Gender and Malaria Network is calling on leaders to look at malaria from a gender perspective in order to optimize the funds being directed towards malaria prevention and control.

“Women have the greatest responsibility for caring for those who fall ill from malaria, yet in most endemic countries these same women have the least access to information, decision-making power and financial resources that would allow for effective disease prevention and treatment at the community level”

Dr Awa Marie Coll-Seck, Executive Secretary of the Roll Back Malaria Partnership.

This Guide to Gender and Malaria Resources is a contribution to the lack of gender aware responses to the infection. In October 2005, a consultative meeting which included the Roll Back Malaria Partnership Secretariat, the Swedish NGO Kvinnoforum, the African network Femmes Africa Solidarité (FAS) and the research network Multilateral Initiative on Malaria (MIM), was held in Paris to discuss how to bring a gender perspective on malaria to the attention of decision makers. At this meeting, 16 organizations from Africa, Europe and Asia agreed to build a Global Gender and Malaria Network and made a commitment to advocate for the inclu-

sion of a gender perspective in all areas of malaria control. With support from the Swedish International Development Cooperation Agency (Sida) the four organisations set up the project "Raising Women's Voices on Malaria" initiated by Kvinnoforum. This project made it possible to expand and formalize the network at a workshop in Arusha, Tanzania in March 2006, where a Framework for Action was elaborated. Today the Global Gender and Malaria Network consists of some 50 actors worldwide including research, international organisations, NGOs, local grass-root organisations and independent activists.

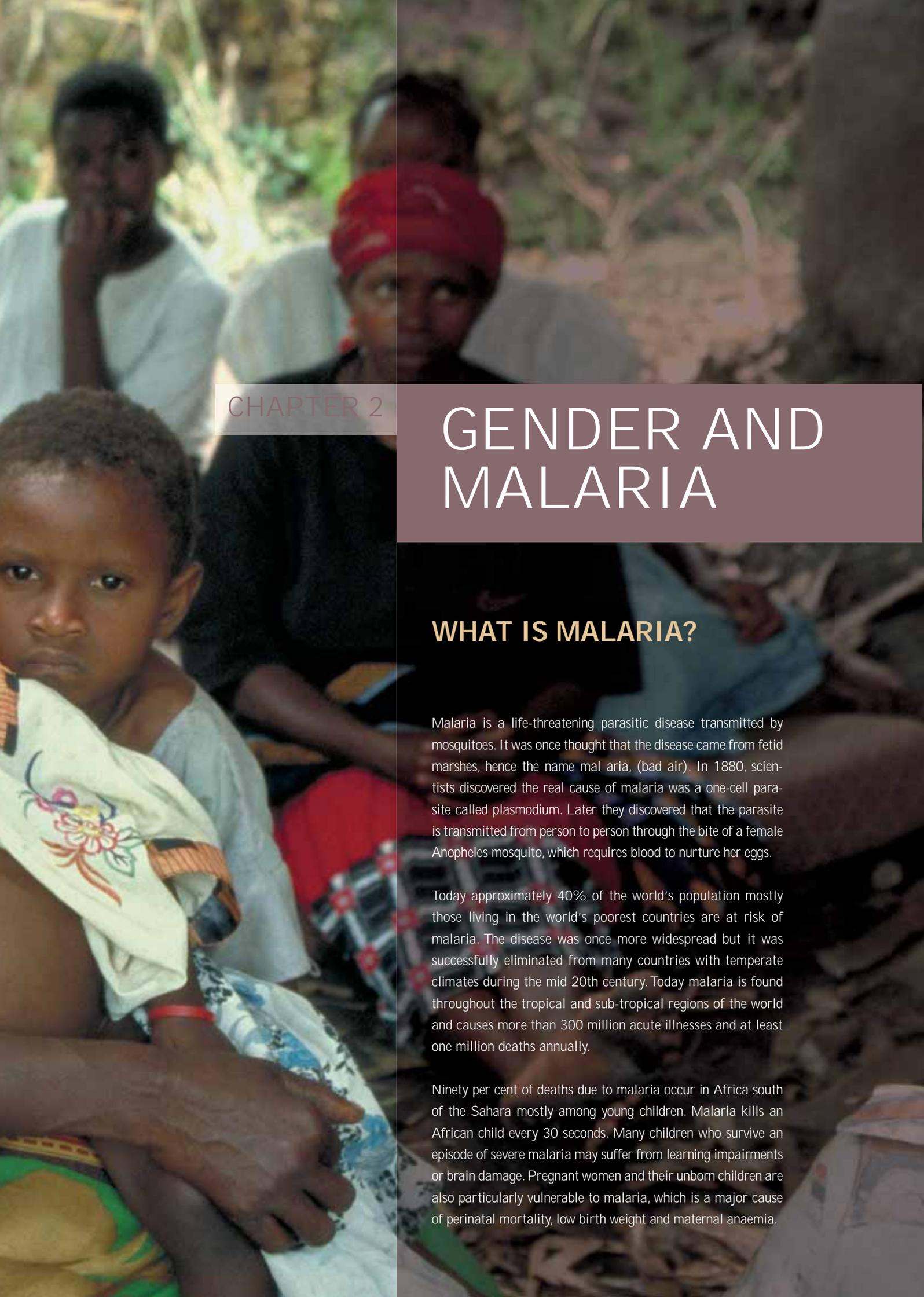
This document provides information on why a gender approach is necessary in the fight against malaria as well as useful resources and tips for those interested in working on the topic. It is expected that the reader is a malaria activist who is curious why a gender approach is relevant for combating the disease. It is also hoped that gender activists take on malaria as a key gender issue.



THE DOCUMENT IS DIVIDED INTO THREE PARTS:

- **PART I** explains the background of producing the Guide.
- **PART II** introduces briefly what malaria is, followed by an introduction to gender, and continues with a presentation on malaria from a gender perspective. Examples of best practice and important research findings are included in the text. This section concludes with a Framework for Action on gender and malaria.
- **PART III** includes a gender analysis matrix for malaria, a list of actors active in this field, and a bibliography of research and documents.



A group of people, including a young child in the foreground, sitting outdoors in a rural setting. The child is looking directly at the camera with a serious expression. In the background, several other people are visible, some looking towards the camera and others looking away. The setting appears to be a natural, outdoor environment with some vegetation and a thatched roof structure visible in the distance.

CHAPTER 2

GENDER AND MALARIA

WHAT IS MALARIA?

Malaria is a life-threatening parasitic disease transmitted by mosquitoes. It was once thought that the disease came from fetid marshes, hence the name *mal aria*, (bad air). In 1880, scientists discovered the real cause of malaria was a one-cell parasite called plasmodium. Later they discovered that the parasite is transmitted from person to person through the bite of a female *Anopheles* mosquito, which requires blood to nurture her eggs.

Today approximately 40% of the world's population mostly those living in the world's poorest countries are at risk of malaria. The disease was once more widespread but it was successfully eliminated from many countries with temperate climates during the mid 20th century. Today malaria is found throughout the tropical and sub-tropical regions of the world and causes more than 300 million acute illnesses and at least one million deaths annually.

Ninety per cent of deaths due to malaria occur in Africa south of the Sahara mostly among young children. Malaria kills an African child every 30 seconds. Many children who survive an episode of severe malaria may suffer from learning impairments or brain damage. Pregnant women and their unborn children are also particularly vulnerable to malaria, which is a major cause of perinatal mortality, low birth weight and maternal anaemia.

There are four types of human malaria: *Plasmodium* (P.) *vivax*, *P. malariae*, *P. ovale* and *P. falciparum*. *P. vivax* and *P. falciparum* are the most common with *falciparum* being the most deadly type of malaria infection. *Plasmodium falciparum* malaria is most common in Africa, south of the Sahara, accounting in large part for the extremely high mortality in this region. There are also worrying indications of the spread of *P. falciparum* malaria into new regions of the world and its reappearance in areas where it had been eliminated.

The malaria parasite enters the human host when an infected *Anopheles* mosquito takes a blood meal. Inside the human host, the parasite undergoes a series of changes as part of its complex life cycle. Its various stages allow plasmodia to evade the immune system, infect the liver and red blood cells, and finally develop into a form that is able to infect a mosquito again when it bites an infected person. Inside the mosquito, the parasite matures until it reaches the sexual stage where it can again infect a human host when the mosquito takes her next blood meal, 10 to 14 or more days later.

Malaria symptoms appear about 9 to 14 days after the infectious mosquito bite, although this varies with different plasmodium species. Typically, malaria produces fever, headache, vomiting and other flu-like symptoms. If drugs are not available for treatment or the parasites are resistant to them, the infection can progress rapidly to become life threatening. Malaria can kill by infecting and destroying red blood cells (anaemia) and by clogging the capillaries that carry blood to the brain (cerebral malaria) or other vital organs.

Malaria, together with HIV/AIDS and tuberculosis (TB), is one of the major public health challenges undermining development in the poorest countries in the world.

Malaria parasites are developing unacceptable levels of resistance to one drug after another and many insecticides are no longer effective against mosquitoes transmitting the disease. Years of vaccine research have produced hopeful candidates and scientists are redoubling the search. But, an effective vaccine is still years away.

Science still has no magic bullet for malaria and there is much doubt that such a single solution will ever exist. Nevertheless, effective strategies are available for its treatment, prevention and control and the Roll Back Malaria Partnership is vigorously promoting them in Africa and other malaria-endemic regions of the world. Mosquito nets treated with insecticide reduce malaria transmission and child deaths. Prevention of malaria in pregnant women, through measures such as Intermittent Preventive Treatment (IPT) and the use of insecticide-treated nets (ITNs), results in improvement in maternal health, infant health and survival. Indoor Residual Spraying (IRS), when used appropriately, is an effective means of malaria vector control. Prompt access to treatment with effective up-to-date medicines, such as artemisinin-based combination therapies (ACTs), saves lives. If countries can apply these and other measures on a wide scale and monitor them, then the burden of malaria will be significantly reduced.¹

The «What is Malaria» section is available in English and French on the Roll Back Malaria Partnership website: <http://www.rollbackmalaria.org>

AN INTRODUCTION TO GENDER

The term gender refers to the economic, social and cultural attributes and opportunities associated with being male and female. In most societies, being a man or a woman means not only having different biological characteristics, but also facing different expectations about the appearance, qualities, behaviour, work and roles appropriate to being male or female.

The biological sex of a woman or a man is static, universal and is clearly connected to the reproductive functions. Gender

¹ http://rbm.who.int/cmc_upload/0/000/015/372/RBMInfosheet_1.htm



refers to a more complex identity and role, which is defined by socialisation processes and including the ideas of what it means to be a woman or a man in a given cultural context. Yet, gender relations are complex and intersect with other power relations such as those based on age, class, race, caste, religion, ethnicity and other social variables.

Gender is not only about characteristics and qualities that we consider male or female but it also impacts on what men and women, girls and boys are expected to do; what roles and tasks they are expected to perform; how they are expected to behave; what they are expected to work with etc. Gender relations thus define how women and men, boys and girls organise their lives in all its aspects; duties, responsibilities, possibilities, restrictions and needs. The distinct roles and behaviours of men and women in different cultures give rise to gender differences. Not all such differences between men and women imply inequity – for example, the fact that in many societies, men generally wear trousers while women often wear skirts and dresses is a gender differences which does not, in itself, favour either group.

Nevertheless, gender relations are linked to power. At a global, structural level this is expressed in the fact that women and girls have less access to power and thus fewer possibilities to control and change their lives. There is a wealth of evidence that women across the world have less access to resources and have fewer rights than men do. Girls tend to have less access to school and less spare time. Many cultures have a very high respect for women, a respect that is often limited to women's traditional role and abolished if women enter traditional "male domains" in society, like politics and decision-making. Consequently, gender power relations are differently manifested in different contexts and different parts of the world.²

SEX

- Genetic/physiological or biological characteristic of a person, which indicates whether one, is female or male.
- Static.

GENDER

- Refers to women's and men's roles and responsibilities that are socially determined.
- Gender is related to how we are perceived and expected to think and act as women and men because the way society is organised, not because of our biological differences.
- Gender is a social construction that change and varies according to culture, religion, class, ethnicity and other.

Gender and poverty

Poverty has during recent years been recognized as a multidimensional phenomenon, encompassing a far wider range of deprivations than economic restrictions (the traditional measure of poverty). This has allowed for a wider understanding of the different experiences of women's and men's poverty. UNDP uses the concept of Human Poverty, which encompasses "the many dimensions of poverty that exist in both poor and rich countries—it is the denial of choices and opportunities for living a life one has reason to value."³ In Swedish Sida's poverty analysis⁴, poverty encompasses "the inability to satisfy basic needs, lack of control over resources, inadequate access to water, sanitation, health and education services." Vulnerability to violence and crime, as well as the threat of it and the lack of a political voice, are further aspects of poverty which impact differently on women and men.

In a gender perspective, where women and men have different rights, opportunities and possibilities as well as different access to resources and power, this wider definition of human poverty makes it more concrete and adequate. It also helps refute the myth that women are always the poorest of the poor.⁵ Many women in the world are indeed very poor, but more important is that they experience poverty differently from men, and it is always context specific. For example, while men in a given context may experience poverty as the lack of income, lack of an ability to participate in the political life, lack of opportunity for the education of children; women may additionally experience the hardship of distant access to water for food and sanitation for the family and the threat of violence.

² The Gender section is an adapted text from Kvinnoforum's definition of gender, available at www.kvinnoforum.org

³ <http://hdr.undp.org/reports/global/2003/faq.html#12>

⁴ Perspective on Poverty (2002) Swedish International Development Cooperation Agency

⁵ Kvinnoforum: Wennerholm, C "Feminization of Poverty, The use of a concept", December 2002, Sida

Another myth is that women-headed households are always poorer than those headed by men. Some women's well-being improves when they are alone if, for instance, they have left their husband due to violence. In the case of women who are alone because their husbands have migrated, their economic situation may improve due to remittances, although they may suffer on a psychosocial level.

Wide-spread recognition of the multi-dimensional quality of poverty has meant that equity, social inclusion, women's empowerment, and respect for human rights are all included in the UN MDGs context as key aspects for reducing poverty.⁶

GENDER AND HEALTH

The health and well-being of women and men, boys and girls is influenced by gender roles and norms, differences in access to power and resources as well as biological differences between women and men. The differences and inequalities are to be found both in terms of health status in general as well as access to health care.

Women's specific health needs are most obviously linked to their reproductive health, and for a long time focus has been placed primarily on women's health during childbearing years. However, small girls, adolescent girls and older women also have specific health needs, both biologically as psychosocially.⁷ Lately the gender aspects of men's health have been highlighted in terms of, for instance, the impact of physical and psychosocial violence during war, in gangs or during childhood, alcohol abuse, tobacco abuse, high-risk sports, etc.

Gender impacts further on health services and access to it. In many developing countries health services are often male-biased which mean that they are not designed to meet the full

needs of women. Social, cultural and economic factors impact women's access and control over resources, which may impede whether she can, for instance, travel to a health clinic or buy adequate medicine (due to lack of income, restrictions in mobility, physical distance, time, male medical staff) and this has severe impact on the ability to access and use of health services.⁸

Medical research also tends to be male biased as the target population is not disaggregated and in too many cases turns out to be composed of young men taken from military service. Thus, differences between women and men, and in different ages and ethnic groups may be obscured with direct consequences on the results and consequently on the use of those results. This bias in research also impacts negatively in that some of women's particular health problems, for instance incontinence and osteoporosis⁹ or the effect of menstrual health across the reproductive period of women's life, receive little attention.¹⁰

Gender norms and values effect on health

Socio-cultural differences, through codes and practices as well as the political and economic environment, affect the health of women and men via legislation, traditional practices and resources.

GENDER NORMS IMPACT ON WOMEN'S HEALTH ¹¹

- A woman cannot receive much-needed health services because norms in her community prevent her from travelling alone to a clinic.
- A teenage boy dies in an accident because of trying to live up to peers' expectations that young men should be "bold" risk-takers.
- A married woman contracts HIV because societal standards encourage her husband's promiscuity while simultaneously preventing her from insisting on condom use.
- A country's lung cancer mortality rate for men far outstrips the corresponding rate for women because smoking is considered an attractive marker of masculinity, while it is frowned upon as unfeminine in women.

⁶ <http://www.undp.org/poverty/>

^{7, 8} Eldis Resource Guide: <http://www.eldis.org/healthsystems/gender/2006>

⁹ WHO Gender and Women's Health Department / Women's Health and Development (WHD) Programme, WHO, 1998

¹⁰ Koblinsky M, Cambell and Harlow (1993) "Mother and More" in Koblinsky M, Timyan J and Gay J (Eds.) The Health of Women, a Global Perspective, Boulder San Francisco Oxford: Westview Press

¹¹ <http://www.who.int/gender/genderhealth/en/print.html>



Traditional practices like Female Genital Mutilation, unsafe and/or sex selective abortion, too early marriages, the "taboo" surrounding information on sexual and reproductive health, ideals of the «good mother having many children» are all socially constructed values and practices, sometimes translated into legislation, which have an impact on women and girls health.

Gender roles, where women and men have different responsibilities in terms of being caregivers, responsibility for childcare, household chores, market responsibilities or income inside or outside the home also affects exposure to transmittable diseases, vulnerability to ill-health and access to health care. In paid employment women are more vulnerable to chronic poverty because of gender inequalities in the distribution of income, access to productive inputs such as credit, command over property, as well as gender biases in labour markets. Women tend to control fewer productive assets than men do. In some contexts men may forbid their wives from working outside the household or extract labour from women through actual or threatened violence.¹²

In most developing countries, women lag behind on virtually every indicator of social and economic status.

Biological differences between sexes

The one and foremost important difference between men and women are the biological differences, related to sex and the reproductive functions. Women menstruate, become pregnant and nurse children while men produce sperm. Men are on the average taller, larger and heavier than women, contributing to sex differences in a number of other important health-related variables such as average blood volume and oxygen consumption.

Biological differences are still a rather under-researched area in terms of impact on gender differences. Some research has been carried out on differences in the brains of women and

men, hormones and their affects, gender differences as relates to rheumatic diseases, sex differences in the micro-flora and other.¹³ The field is however new and there is clearly a need for further research on biological differences and their impact on women and men.

EXAMPLES OF RESEARCH ON BIOLOGICAL DIFFERENCES

- It has been observed that the timing of breast cancer surgery vis-à-vis the menstrual cycle has direct impact on the length of survival of the woman.¹⁴
- Little is known about sex differences in metabolism of toxins. It has been assumed that the average woman is at greater risk of harm from fat-soluble chemicals because of a higher proportion of fat tissue, thinner skin and slower metabolism. The percent of fat varies in both sexes according to age, physical fitness and training.¹⁵



¹² UNDP, Cagafay, Nilufer, (2001) "Trade, Gender and Poverty", pg 6

¹³ For instance at the Center of Gender Related Medicine at the Karolinska Institute in Stockholm, Sweden.

¹⁴ Koblinsky M, Cambell and Harlow (1993) "Mother and More" in Koblinsky M, Timyan J and Gay J (Eds.) The Health of Women, a Global Perspective, Boulder San Francisco Oxford: Westview Press

¹⁵ Gender, Health and Alcohol Use, WHO Fact sheet on Gender and Health, September 2005



Sexual and reproductive health and rights

Women’s maternal health has long been given attention, mostly linked to women’s roles as mothers. The gendered dimension of the reproductive health and rights of women relates to the dual dimension of their life. Women are biologically destined to childbirth and their health is clearly affected by their reproduction. Sadly, in most developing countries the lack of attention to reproductive health has unacceptable outcomes in terms of morbidity and mortality. The reasons for this are to be found in socially constructed values and practices as well as in the lack of adequate health care. Therefore, better maternal health remains a priority worldwide. Focus has, however, shifted to address it as a reproductive right for women to have control over their bodies as well as adequate access to health and care. The international conferences in Cairo in 1994 and in Beijing 1995 have been central to define reproductive and

sexual rights as well as to put them on the global agenda. Still, this remains sensitive and difficult to pursue in many parts of the world due to ideological, moral and religious reasons.

Reproductive rights in the Platform for Action, Women’s Conference in Beijing in 1995

“The human rights of women include their right to have control over and decide freely and responsibly on matters related to their sexuality, including sexual and reproductive health, free of coercion, discrimination and violence” (Chapter 4, C, Para. 96: 58).

Reproductive rights are defined as:

“ ...a state of complete physical, mental and social well-being and not merely the absence of disease or infinity, in all matters relating to the reproductive system and to its function and processes” (Chapter 4, C, Para. 94: 58).



Women's lives are by nature bonded to reproduction, and even though men are equally important for the short biological act of reproducing mankind, their biology does not bind them to the consequences of pregnancy or expose them to the various effects the reproductive cycle has on women throughout their life.

CONSEQUENCES OF LACK OF REPRODUCTIVE HEALTH¹⁶

- Death and disability due to sexual and reproductive health accounts for 18% of the total disease burden globally and 32% of the disease burden among women in reproductive age (15-44) in 2001.
- 529,000 women die each year in delivery and pregnancy, overwhelmingly in developing countries. For every woman that dies 30 more suffer injuries, infection and disabilities.
- Women in industrialized countries face 1 in 2,800 chances of dying in pregnancy or delivery. In developing countries the rate is 1 in 61 and in Sub-Saharan Africa it is 1 in 16.
- Direct complications account for 80% of the maternal deaths. Indirect complications vary among regions, but include malaria and HIV/AIDS.
- Unsafe abortions contribute to 13% of maternal deaths (68,000/year), particularly in Latin America and the Caribbean region.
- Abused women have been found to be more than twice as likely as non-abused to have poor health, including reproductive health and both physical and mental problems and increased risk of contracting sexually transmitted diseases.

Poor reproductive health and lack of sexual rights are symptoms of gender, class and other inequalities. This has psychosocial consequences through disempowerment and a decreased possibility of, for instance, the power to negotiate for safe sex and condom use. Other than health, it impacts the individuals' physical security, education, mobility, social and economic status and other factors that relate to poverty.¹⁷ At a social level it prevents those affected from taking an active part in their communities. By contrast, good reproductive health, and the understanding of sexual rights, including pleasure and fulfillment, are linked to equity and empowerment, and underpin all the major health and development goals.¹⁸

MALARIA FROM A GENDER PERSPECTIVE

"A gender approach contributes to both understanding and combating malaria. Gender norms and values that influence the division of labour, leisure activities, and sleeping arrangements, may lead to different patterns of exposure to mosquitoes for males and females. There are also gender dimensions to accessing treatment and care for malaria, as well as preventative measures such as mosquito nets. A careful understanding of the gender-related dynamics of treatment seeking behaviour as well as of decision making, resource allocation and financial authority within households is key to ensuring effective malaria control programmes. Therefore, gender and malaria issues are increasingly being incorporated into malaria control strategies in order to improve their coverage and effectiveness across contexts.¹⁹"

Patterns of exposure

Malaria can impact men and women differently owing to gender norms in society and differing behaviour. Men who work outdoors in forestry, fishing, mining, agriculture or ranching are at a greater occupational risk of contracting malaria if this work occurs during peak biting times. In some pastoral societies, boys and young men leave their homes to watch over livestock as they graze. These boys and young men have very little, if any, protection from malarial mosquitoes and are often far away from treatment facilities should they fall ill. Men from low endemicity regions may also migrate to areas of high endemicity for work, putting them at substantial risk.²⁰

The division of labour as a result of gender roles may play a significant part in determining exposure to mosquitoes, however few studies have addressed this issue. Women's household responsibilities such as cooking the evening meal outdoors or waking up before sunrise to prepare the household for the day may put them at greater risk of malaria infection than men in

¹⁶ Bernstein, S and CH Hansen, (2006:19) Public Choices, Private Decisions: Sexual and Reproductive Health and the MDGs, UNFPA http://www.unfpa.org/publications/docs/sexual_health.pdf

¹⁷ The Swedish Association for Sexuality Education, (2004). "Breaking Through- A guide to Sexual and Reproductive Health and Rights"

¹⁸ Eldis Health Resource Guide (2006) "Time to think positively about sexual and reproductive health and rights"

¹⁹ WHO, Information Sheet on Gender, Health and Malaria, April 2006 working draft.

²⁰ Reuben, Rachel (1993). "Women and Malaria- Special Risks and Appropriate Control Strategy. Social Science & Medicine Vol.37, N°4, pp.473-480, and Lampietti et al. "Gender and preferences for malaria prevention in Tigray, Ethiopia". Policy and Research Report on Gender and Development. Working paper Series N°3. October 1999. The World Bank Development Research Group/Poverty Reduction and Economic Management Network in Gender, Health and Malaria as cited in WHO, Information Sheet on «Gender, Health and Malaria,» April 2006 working draft.

their societies.²¹ In other cases, men and women are equally at risk for infection given their activities during peak biting hours.

Insecticide Treated Net (ITN) use is also subject to gender norms. Acceptability and use of ITNs are strongly linked to culturally accepted sleeping patterns, in which gender plays an important role in who uses the nets. In some instances, young children sleep with their mother and are therefore, protected by her net if she has one. Or, if a household only has one net, priority may be given to the male head of household as he is often considered the primary breadwinner. In other contexts, men have very little access to ITNs if they sleep predominantly outside.²²

Hence, understanding how gender patterns of behaviour influence exposure to mosquitoes, including use of ITNs, can assist in developing more effective recommendations for prevention of malaria infection. For control measures to be effective, health officials have to look at ways of addressing women's relative lack of power and financial resources. Equally as important is the need to target men for malaria control education and sensitization.

Bungoma Project Case Study

Bungoma, a district in western Kenya, has all the classic ingredients for an extremely high prevalence rate of malaria namely: poverty, dense population, standing water, a large number of mosquitoes, malaria endemicity and below average access to education. A five-year project run by the African Medical and Research Foundation (AMREF) introduced a number of important new initiatives to control malaria in the region.

The results showed a dramatic fall in the prevalence of malaria amongst some, but not all, of the population. The more affluent, such as civil servants and salaried workers, benefited most from the interventions. A study concluded early in 2004 indicated that the impact of AMREF's activities inadvertently skimmed over the most vulnerable groups especially very poor pregnant mothers and young children.

A NUMBER OF REASONS THAT EMERGED INCLUDE:

- Those poorest people who had managed to buy a bed net were draping it over the matrimonial bed, excluding other family members.
- Midway through pregnancy, wives leave the matrimonial bed to sleep with the children on the floor. The target group is therefore left unprotected against mosquito bites.
- The poorest people could not afford to buy a net or the "luxury" of visiting a clinic to buy malaria prophylactics. AMREF was able to offer a solution thanks to its project partner, the U.S.-based Population Services International, which provided bed nets free of charge. AMREF attracted mothers to antenatal clinics with the offer of free services and one free bed net on each of two visits. During the visit the AMREF trained health workers educate the mothers about other common childhood killers such as malnutrition, dysentery and measles. To measure success, AMREF trained village health workers to compile birth and death registries and to record how many mothers seek treatment for their children or themselves within 48 hours of a fever developing.

Source: <http://www.amref.org>

Malaria - a particular problem for pregnant women and adolescent girls

In most endemic areas of the world, pregnant women are the main adult risk group for malaria. They are four times more likely to suffer attacks of symptomatic malaria than other adults. Pregnancy reduces a woman's immunity to malaria, making her more susceptible to malaria infection and increasing the risk of illness, severe anaemia and death. *Plasmodium falciparum* is generally accepted as a leading cause of anaemia in pregnant women. It is estimated that anaemia causes as many as 10,000 maternal deaths each year.²³ For the unborn child, maternal malaria increases the risk of spontaneous abortion, stillbirth, premature delivery and low birth weight - a leading cause of child mortality.²⁴

21 Tolhurst, R and Nyonator, FK. (2005) "Looking within the household: gender roles and responses to malaria in Ghana". *Trans R Soc Trop Med Hyg*, Oct 5, 2005

22 WHO, Information Sheet on «Gender, Health and Malaria.» April 2006 working draft.

23 RBM, 'Malaria in Africa' RBM infosheet N°6, http://www.rbm.who.int/cmc_upload/0/000/015/370/RBMInfosheet_3.htm

24 WHO, Global Malaria Programme website. <http://www.who.int/malaria/>



Pregnancy in adolescence increases vulnerability to malaria for both biological and social reasons. In many sub-Saharan African settings, adolescents are often parasitaemic (already have malaria parasites present in their blood) and anaemic at the time that they first become pregnant. Data from Malawi has shown that non-pregnant and pregnant adolescent girls had significantly higher parasite rates than women above 19 years.²⁵ Adolescent girls and unmarried women may also face stigma or negative attitudes and have more limited access to support and resources. All of these factors impede timely treatment seeking for malaria as well as information and access to prevention tools. Participants in a study in Uganda, perceived pregnant adolescents as a group least likely to use antenatal care.²⁶

There are proven methods for reducing the incidence of death and disease due to malaria in pregnant women and their newborns. In areas where malaria transmission is stable, prevention is critical. Insecticide-treated nets (ITNs) decrease both the number of malaria cases and malaria death rates in pregnant women and their children. A study in an area of high malaria transmission in Kenya has shown that women protected by ITNs every night during their first four pregnancies produce 25% fewer underweight or premature babies. In addition, ITN use benefits the infant who sleeps under the net with the mother by decreasing exposure to malaria infection. ITNs should be provided to pregnant women as early in pregnancy as possible, and their use should be encouraged for women throughout pregnancy and during the postpartum period. Intermittent preventive treatment (IPT) is another effective prevention technique that involves providing all pregnant women with at least two preventive treatment doses of an effective antimalarial drug during routine antenatal clinic visits. This approach has been shown to be safe, inexpensive and effective. A study in Malawi evaluating IPT showed a decline in placental infection (32% to 23%) and in the number of low birth weight babies (23% to 10%). It also found that 75% of all pregnant women took advantage of IPT when offered.²⁷



Malaria and HIV/AIDS

Malaria and HIV/AIDS are two of the most devastating global health problems of our time, causing more than 4 million deaths a year taken together. Both malaria and HIV/AIDS are diseases of poverty, taking their greatest toll among poor populations living in developing countries. The toll both diseases take on families' health, communities' productivity and countries' economies exacerbates the vicious cycle of poverty. In addition, co-infections with malaria and HIV/AIDS have major health implications.

People living with HIV/AIDS have a two fold risk of developing malaria compared to HIV-negative people. Another growing concern is the risk of treatment failure as antimalarial drugs appear to be less effective in HIV-infected than in uninfected adults because of increased susceptibility to opportunistic infections as a result of a suppressed immune system. More frequent attacks of malaria among people living with HIV/AIDS further weakens immune systems, thus increasing vulnerability to other infections including tuberculosis, which is the number one killer among people living with HIV/AIDS.

25 Ayisi et al. (2003) "The effect of dual infection with HIV and malaria in pregnancy outcome in western Kenya". AIDS. March 7,17(4) pp585-94, 2003 as cited in WHO Information Sheet «Gender, Health and Malaria.» April 2006 working draft.

26 Mbonye, A et al. (2005) "Preventing malaria in pregnancy: a study of perceptions and policy implications in Mukono district, Uganda." Health policy and planning. Advanced Access published Nov 29th, 2005.

27 RBM, "Malaria in Pregnancy" RBM InfoSheet, http://www.rbm.who.int/cmc_upload/0/000/015/369/RBMInfosheet_4.htm

Malaria, like other diseases including tuberculosis, is more difficult to diagnose in people living with HIV/AIDS. The standard practice in malaria endemic countries is to assume every fever is malaria until proved otherwise. Many HIV-positive people feel safer taking drugs immediately than waiting to get the test later. It is evident that malaria kills quickly and it does not wait for someone to take a test first. Or as Milly Katana, an HIV/AIDS and malaria activist explained it: "I do not want to survive HIV/AIDS, which is incurable, to die from malaria."²⁸

MALARIA AND HIV/AIDS

- are most common in the same regions: Both diseases are concentrated in tropical and sub-tropical regions of the world, overwhelmingly affecting developing countries, particularly those in sub-Saharan Africa.
- are diseases of poverty: Malaria and HIV/AIDS are both causes of poverty and caused by poverty. They often affect the poorest segments of any population by keeping people out of work, causing school absenteeism among children and forcing families to divert meager incomes to treatment.
- increase risks of infection and treatment failure: HIV/AIDS increases the risk of infection with malaria and decreases response to standard antimalarial treatment. As a cause of anaemia, malaria frequently leads to blood transfusions, a potential risk factor for HIV infections. Malaria also contributes to increased viral load among HIV-infected people.
- have disproportionate effects on pregnant women and children: HIV/AIDS impairs treatment of malaria among pregnant women and dual infections increase the risk of illness, anaemia, and low birth weight during infancy. Children who have HIV/AIDS are more likely to experience severe malaria.

Source: RBM Partnership Backgrounder: [The link between malaria and HIV/AIDS](#)

Compared to women with either malaria or HIV infection, pregnant women who are co-infected have a higher risk of premature birth and intrauterine growth retardation and are therefore more likely to have low birth weight infants. HIV infection impairs malarial immunity in pregnant women and



also weakens effectiveness of both intermittent preventive treatment (IPT) and treatment of malaria during pregnancy. Maternal malaria is also associated with a two-fold higher HIV viral concentrations. Some research assessing the impact of malaria during pregnancy on the risk of mother-to-child transmission of HIV has reported an increased risk when there is a higher degree of HIV related suppression of the immune system and severity of the malaria infection.

Studies show that the highest overlap between malaria and HIV infections occurs among adolescent girls, yet control activities are directed towards other target groups. In many cases, the malaria control efforts that do focus on pregnant women fail to target pregnant adolescents and their partners. This can be attributed to a generally low priority given to adolescents and the lack of an overall strategy for adolescent health in most African countries.²⁹

In order to reduce the lethal consequences of dual infection with HIV and malaria, prevention and treatment of the two diseases must mutually reinforce each other. In areas of malaria transmission, protection by insecticide-treated nets is vital to people living with HIV/AIDS - especially HIV-positive pregnant women who are most vulnerable to malaria. Malaria and HIV/AIDS work can also be better coordinated in the provision of health care services, as malaria accounts for 25-35% of all outpatients visits and 20-45% of hospital admissions in African endemic countries. At the community level,

²⁸ Katana, Milly at "A Briefing on gender and malaria", in Stockholm, 28 April 2006

²⁹ Brabin, L.; Brabin, B.J (2005) "HIV, malaria and beyond: reducing the disease burden of female adolescents" in BioMed Central / Malaria Journal, BioMed Central



antenatal and family health clinics could offer basic malaria prevention to women at the same time as providing counseling and testing for prevention of mother to child HIV transmission. More collaborative action on malaria and HIV is also needed in the field of research.

Women's vulnerability to malaria beyond biology

Pregnant women and their unborn children are the focus of most of the literature on how malaria affects women's morbidity and mortality. However, women's experience with malaria goes beyond biology and should not be defined only within the narrow confines of reproductive function. Gender analysis allows for a fuller understanding of the impact of sociocultural factors and, in turn, allows for more effective and better tailored malaria control strategies.

ASIDE FROM PREGNANCY, THE FOLLOWING FACTORS CAN EXACERBATE WOMEN'S VULNERABILITY TO MALARIA:

- Higher incidence of poverty, especially abject poverty, among women
- Poorer nutrition in women and girls
- Lower level of formal education
- Less access to financial resources, including credit and borrowing
- Lower social status than men in similar circumstances
- Gendered divisions of labour that leave women less time to take care of their own health
- Gender constructions of femininity and fertility

It should be noted that in areas of endemic tropical disease, both males and females face discrimination and barriers to good health due to poverty, inequality and deprivation. However, studies have shown that women are particularly disadvantaged and marginalized, increasing their risk of morbidity and mortality. A community-based study in Cameroon, where malaria is endemic, found that "the burden of illness rests disproportionately on economically disadvantaged women and on women with low social status. Excess morbidity was found

among women who were not employed, women living in poor neighbourhoods, and those living in households without modern amenities."³⁰

Malaria and gender roles in the community

Treatment seeking for children

Almost universally, mothers are the first to diagnosis and respond to illness in their children. The ways in which mothers respond to illness and take action for treatment is very much a product of the family's circumstances as well as societal or environmental factors. Treatment seeking for illness is often a complex process that varies according the social-cultural dynamics where people live.

The following questions are important to a gender analysis of treatment seeking for children suffering from malaria:

- 1) Who decides when to seek treatment - do mothers have the autonomy to take this decision?
- 2) Where is treatment sought and why: traditional healer, local drug shop, community health worker, formal health clinic, a combination of the above?
- 3) Who pays for treatment and how does this impact the time it takes to seek treatment?
- 4) Does the fulfilment of other household or social roles impede treatment seeking?

Documented case studies illuminate the need to examine these types of gender related questions when malaria control strategies are being devised:

- "A study on gender roles and responses to malaria in Ghana found that women who lacked either short- or long-term economic support from male relatives, or disagreed with husbands or family elders about appropriate treatment-seeking, faced difficulties in accessing health care for their children with malaria. They also bore a heavy burden of the cost of seeking treatment in relation to their access to resources."³¹

30 Heggenhougen, Kristian H., Veronica Hackethal and Pramila Vivek, (2003) «The behavioural and social aspects of malaria and its control: An introduction and annotated bibliography.» UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR). TDR/STR/SEB/VOL/03.1., p 118
31 Tanner, M and Vlassoff, C (1998) "Treatment-Seeking Behavior for Malaria: A Typology based on endemicity and gender." Social Science & Medicine, Vol 46. N° 4-5, pg 523-532, 1998 as cited WHO, Information Sheet on «Gender, Health and Malaria.» April 2006 working draft

- “Mothers related mild malaria to mosquito bites, whilst degedege (convulsions, high fever), though acknowledged as being a serious childhood condition, was not recognized as possible outcome of malaria infection. The local interpretation of malaria and related complications are reflected to the logic of actions and treatment-seeking behaviours followed for a sick child. In view of the fact that severe forms of malaria are linked to supernatural causes [in this community], a traditional healer is considered more appropriate for treating a convulsing child. The relationship between convulsions and evil spirits is a perception that is common to other African communities. Modern health care was sought for what was perceived to be mild malaria, while traditional care was sought for degedege.”³²
- “In the study areas, treatment seeking for children suffering from malaria is a complex process, being a function of socio-cultural milieu in which people live. Generally, mothers would consult different healing resources at the same time starting with traditional healers and then modern care, back and forth.”³³
- “An important customary rule [in the four village study area in Côte d’Ivoire] is that the person who starts a treatment is responsible for paying all the related bills. In villages without irrigation, women have more income at their disposal. So, if the first treatment for malaria fails, these women quickly buy anti-malarial pills from the local market to start a second course of treatment. If malaria still persists, they then ask the head of the household to take the child to the health centre. In villages with irrigation, women have less money at their disposal. So, if the first treatment fails, these women generally don’t buy anti-malaria pills. Instead, they ask their husband to take the child to the health centre. ... This referral takes place later than the second treatment option (anti-malarial pills) initiated by women [who have access to more sources of income] in un-irrigated villages.”³⁴

Socioeconomic impacts

In most households it is women who have the primary responsibility for providing and/or facilitating care and treatment for sick family members. Although more research is needed on

this issue, a study in rural Colombia found that the illness of an adult male placed the whole household at risk. Women’s workload was significantly increased, as they had to take care of sick household members as well as replace males in farm production. The study found that 64% of all tasks normally undertaken by the sick person were now performed by women. The women expressed concern about the loss of the main economic provider as well as about having to work harder in order to earn money to buy medicine and food. The study points out that although the disease burden was greatest amongst adult males, the indirect economic burden of the disease was greater for women.³⁵

Sickness from malaria and other illnesses tends to have a reverberating effect on multiple women due to certain community structures. In Ghana it has been observed that when the woman of the household is sick, a female neighbour or relative is called on to care for the sick woman and another friend or relative may need to help carry out the woman’s economic activities such as market trading or harvesting. If a mother takes her child to hospital, a female relative is often expected to come to the home to take care of the other children and husband who remain the house.³⁶

Peer Education Program in the Gambia

The Peer Educators are currently trying to bring men (household heads) on board through their skits (8 minute dramatic plays) and Community Focus Group Discussions in a bid for them to see the critical role that they can play in supporting women both morally and financially to go for IPTs, ITNs and other malaria control measures. This is a vital and essential intervention as patriarchy and polygamy are present in the target communities. Peer Educators of Youna facilitated such focus group discussions and this has scaled up ITN usage from 30 to 110 in that area - results based on the Self Assessment framework (developed by the RBM Partnership Secretariat), which has a gender self rating component.

In the same vein, the Nova Scotia Gambia Association (NSGA) is also working through radio programs, broadcast

³² Makundi, E. H. Malebo, P. Mhame, A. Kitua, M. Wersame, (2006) «Role of traditional healers in the management of severe malaria among children below five years of age,» *Malaria Journal* 2006, Volume 5:58.

³³ *ibid*

³⁴ Shore, Keane J. «Hidden Links: Irrigation, Malaria and Gender,» The International Development Research Centre, July 2002. Accessed on http://www.idrc.ca/en/ev-11995-201-1-DO_TOPIC.html

³⁵ Heggenhougen, Kristian H., Veronica Hackethal and Pramila Vivek, (2003) «The behavioural and social aspects of malaria and its control: An introduction and annotated bibliography,» UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR). TDR/STR/SEB/VOL/03.1.

³⁶ As recounted by Yaa Peparah Amekudzi, Arusha Workshop, March 2006



in local languages, where men give testimonies of how they support their families to prevent and treat malaria, especially pregnant women and children under five. These men serve as catalysts in prompting other men to do the same.

Nova Scotia Gambia Association (NSGA)

Health services and gender

Health services in most malaria endemic countries face severe constraints to providing quality care such as too few or poorly trained staff, lack of equipment and drugs and inadequate infrastructure. In the case of malaria, health personnel may not know the latest prevention and treatment standards or, when they have been well trained, may face resource constraints. Lack of access to quality health services results in a widespread use of herbal and traditional treatments. Gender and power relations also affect treatment-seeking behaviour. In many countries, women often have to request their husband's permission to access treatment for themselves and/or their children. In some settings, women cannot visit health centres unaccompanied, and the lack of male escort may make it impossible for women to act upon their need to go for treatment.

Studies on women's access to and use of health care services have found wide-ranging reasons for underutilization, including:

- women's heavy workload leaving them with little time to attend to their own and their children's health needs,
- a strong female-gendered identification of fever with supernatural causes rather than medical illness and/or a distrust of Western medicine to treat certain types of convulsions and fever,
- distance to treatment is too costly in terms of time allocation,
- lack of information on the importance of early diagnosis and treatment,
- male dominated decision-making,
- women not being in the habit of expressing their own health needs,
- women being perceived as sexually disloyal if they visited a male health worker.³⁷

People living in poverty or close to it are the least likely to have access to health services. Major barriers include money, distance, time, transportation, information and level of comfort. Women are additionally burdened in that once they seek treatment health personnel may consciously or unconsciously be biased against them, not having been trained to address gender dimensions in treatment. Examples include higher prevalence of language barriers for women due to higher rates of illiteracy and lower level of education, women being blamed for seeking treatment at a late stage and service providers being mostly male. When the right course of treatment is prescribed it may not be followed because of lack of resources or the caring role of women, both of which can lead to lower dosing, sharing pills or finishing early.³⁸

It should be recognized that in some settings it is men who underutilize health care services as compared to women in similar circumstances. This may be attributed to male social norms that dictate that men must be strong and "get over" their illness by themselves. Or, it could be that men assign a lower priority to their health or feel uncomfortable asking for assistance.

Thus, involving "district-level workers in local-level practical approaches to mainstreaming gender is central to facilitating change and informing health strategies" that will result in better utilization of services by women and men.³⁹

"Simply put, the risk, prevention, and treatment associated with malaria are significantly distinct for men and women."...

"Many strategies for malaria control and prevention have not been able to be sustained or implemented due to the failure to incorporate an interdisciplinary and gendered perspective in the design of such programmes as well as insufficient consideration of the general social and cultural context of infection and disease."

Source: Special Programme for Research and Training in Tropical Diseases TDR, "The behavioural and social aspects of malaria and its control."

37 Heggenhougen, Kristian H., Veronica Hackethal and P. Heggenhougen, Kristian H., Veronica Hackethal and Pramila Vivek, (2003) «The behavioural and social aspects of malaria and its control: An introduction and annotated bibliography.» UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR). TDR/STR/SEB/VOL/03.1.

38 Rugemalila, Joas. Presentation on Gender and Malaria. Delivered in Arusha, 13 March 2006. Available on the RBM website, www.rollbackmalaria.org.

39 Liverpool School of Tropical Medicine (2005) "Gender mainstreaming in health: the possibilities and constraints of involving district-level field workers" The Malaria Knowledge Programme Liverpool School of Tropical Medicine, Liverpool UK. http://www.healthlink.org.uk/PDFs/mkp_mainstreaming.pdf



HOME-BASED TREATMENT THROUGH VILLAGE OUTREACH

Important strides have been made to fight malaria in Cambodia, which mainly affects people living in remote rural areas. In Patang village,

Rattanakiri province in north-eastern Cambodia, a 35-year-old malaria worker, Kaam Lamo, counts the packs of artesunate and mefloquine combination treatments remaining in his medical kit. He also checks how many rapid diagnostic test kits for malaria he has left. Kaam Lamo and his wife Tuk Tang live in Patang and were recruited three years ago to serve as malaria workers for their village. Each month, they receive new supplies of malaria treatment packs and diagnostic kits – supplied by Cambodia’s Ministry of Health – when they attend training at the local health post. They are trained first how to diagnose people, and then how to treat people with malaria in people’s homes.

Village malaria workers like Kaam Lamo and Tuk Tang are key players in a new strategy, piloted in 2001 by the Cambodia National Malaria Centre, to roll back malaria in the most remote areas of the country. Before the project began, it had become clear that the national network of health centres and posts were not reaching people living deep in the forest, so the strategy involved training villagers like Tuk Tang and Kaam Lamo to go house-to-house diagnosing and then treating people with malaria.

135 villages have been participating in a study to look at the effectiveness of this approach. The project receives support from the Global Fund to Fight AIDS, Tuberculosis and Malaria

The results so far have been impressive – the number of malaria deaths reported through health centres in the province has dropped by nearly one third in four years.

Source: <http://www.who.int/features/2005/malaria/en/>

RECOMMENDATIONS AND IDENTIFIED GAPS

The Global Gender and Malaria Network has, through its collaborative work, developed an advocacy agenda that promotes the integration of gender in the areas of policy, research and implementation for malaria control.

Global Gender and Malaria Network, Framework for Action

Objectives

Build and sustain a network that will make the case for linking malaria and gender at every level – policy, research and implementation, in order to address health inequity due to gender norms and roles.

Specifically:

- Highlight the specific vulnerability of women to malaria in order to improve quality of service delivery and promote access and coverage of all interventions.
- Empower women & men with information about malaria and appropriate skills so that their voices are amplified when policy, research and implementation of malaria control is undertaken.
- Empower communities with information on malaria that includes a gender perspective, thereby strengthening their ownership of malaria control and building their competency as agents and advocates of change.
- Sensitize decision makers at all levels in order to mainstream gender into malaria policies and create an enabling environment so that they can respond appropriately to community concerns.
- Ensure that data, for example, on malaria prevalence, access to treatment, is disaggregated by sex and age, and that qualitative research is conducted to address gender related barriers to prevention and treatment.



Policy recommendations

Countries allocate the necessary budget to implement the following policies:

- Strengthen the implementation of policies on ITNs, IRS and IPT.
- Universal access to free malaria treatment.
- Training on gender analysis for all health workers and managers.
- All malaria research incorporates sex disaggregated data and gender analysis.
- Strengthening ANC at community/district level to ensure an integrated service delivery within the framework of reproductive health services (HIV and malaria prevention and treatment).
- Compulsory and free education, especially for girls, with the inclusion of skills based malaria education and gender awareness for all ages, embedded in the school curriculum.
- Accelerate research to allow rapid and effective implementation of home-based care and “door step” availability of malaria treatments.

Research recommendations

- Research into intra-household power dynamics.
- Research on male/female differences in terms of response to new drugs and vaccines.
- Include women in drug and vaccine trials taking into account ethical dimensions.

- Research on the safety of new antimalarial drugs for pregnant women.
- Improve and make affordable rapid diagnostic tests for use within home management and door step access - particularly for pregnant women in remote, high-risk areas.
- Research on children’s malaria treatment formulation and dosage.
- Research into stability of ACTs so that they can be available closer to the home.

Implementation recommendations

- Reinforce the inclusion of malaria in the management of child illnesses (IMCI) and maternal health strategies.
- Strengthen community competency at household level to facilitate prevention, diagnosis and treatment strategies closer to the home taking into account the time and resource constraints of women.
- Ministry of Gender or Women’s Affairs (or equivalent line ministries) and NMCPs work together to integrate gender sensitive policies into the implementation of their programmes and ensure they are adequately funded.
- Create clear messaging and advocacy around community-based vector control including indoor residual spraying (IRS).
- Strengthen ways to involve men in the provision of care within the community and home.







CHAPTER 3

RESOURCES

THE GENDER ANALYSIS MATRIX FOR MALARIA - AN EXAMPLE

Developed by the World Health Organization's Department of Gender, Women and Health

Gender Analysis of malaria: the impact of different characteristics of gender on men and women's health

HEALTH ISSUE/ PROBLEM	HOW BIOLOGICAL DIFFERENCES BETWEEN SEXES INFLUENCE MEN AND WOMEN	HOW GENDER NORMS/VALUES AFFECT MEN AND WOMEN (WOMEN AND BOYS)	HOW ACCESS TO AND CONTROL OVER RESOURCES AFFECT MEN AND WOMEN
<p>Health Vulnerability</p>	<ul style="list-style-type: none"> • Malaria is four times more likely to strike pregnant women than other adults. Pregnancy increases women's "attractiveness" to mosquitoes; that and immune system changes mean higher incidence in pregnancy • More women living with HIV in several parts of the world, and people living with HIV /AIDS more likely to catch malaria • Lack of recognition of different aetiology for malaria in pregnancy pathology and physiology 	<ul style="list-style-type: none"> • A pregnant woman may not seek help on time, • Boys outdoors at night more than girls • Modes of dressing; clothing norms by gender may affect skin exposure • Occupational exposure (gold mines, working at night, trading) - varies with the gender • Outdoor activities like cooking and domestic roles • Sleeping patterns (outdoors or indoors). • Traditions e.g. attitude towards pregnant women • Difficulty in communication with health providers resulting in delay in obtaining care or quality of care (mono-lingual women) • Preferential treatment for boys and mothers carrying male fetuses 	<ul style="list-style-type: none"> • Men have the means to seek health care, control decision making & finances • Women have problems of transport to access health services • Limited access to information (a resource) on preventive measures • Limited access to resources resulting in delays in accessing formal health system or medicines • Inadequate resources to meet the health care needs of the family resulting in prioritising care
<p>Health seeking behaviour</p>	<ul style="list-style-type: none"> • Malaria may be asymptomatic during pregnancy leading to non-seeking of services • Pregnant women may not differentiate signs of malaria from those of pregnancy • Pregnancy complications which make women not to attend clinics • Women vulnerability to fear of sexual violence in case of going out at night • Menstruation and deliveries may delay treatment seeking 	<ul style="list-style-type: none"> • Men and boys may be expected to endure discomfort more than women and girls and this delays reporting • Women have more chores • Boys take longer to report their health problems to parents • Women may be more likely to seek care for their children than men • Women's mobility and autonomy re: their own health care may be limited by husband; • In some areas, girl children may not be cared for at same level as boys • Decision making process in the house hold. e.g. to seek medical care or traditional medicine • Women's' household duties • Favouritism in polygamist families where the favourite wife sleeps under the net with the husband • Mother role of women which makes them give away nets meant for themselves • In some countries, men spend more time out during the nights than women 	<ul style="list-style-type: none"> • Boys/men are likely to have more access to education and be more literate & so more likely to have knowledge on illness • Men and boys are more mobile • Women usually control fewer financial resources to pay for care • Women marginalization in formal employment • Women have less time to seek for medical treatment



HEALTH ISSUE/ PROBLEM	HOW BIOLOGICAL DIFFERENCES BETWEEN SEXES INFLUENCE MEN AND WOMEN	HOW GENDER NORMS/VALUES AFFECT MEN AND WOMEN (WOMEN AND BOYS)	HOW ACCESS TO AND CONTROL OVER RESOURCES AFFECT MEN AND WOMEN
Ability to access health services	<ul style="list-style-type: none"> Physical strength for endurance to access care e.g. to walk long distances 	<ul style="list-style-type: none"> Information in social centres for men, More information for pregnant woman at the ANC Clinic too far from home Women need to care for other children at home Typical occupations for men may be located far from care 	<ul style="list-style-type: none"> Resources: education, finances, transport, time & information
Preventive and treatment options, responses to treatment or rehabilitation	<ul style="list-style-type: none"> Traditional exclusion of women from vaccine trials could possibly result in vaccines with unforeseen side effects in women Pregnancy makes the woman more likely to take malaria prevention and treatment options from ANC 	<ul style="list-style-type: none"> Use of culturally sanctioned herbs during pregnancy Men may get priority in bednet use as breadwinners and/or because of greater status Community-based prevention programs have failed in areas where social norms prevent women from attending community events In some areas, women may not be willing to be seen by male providers. Reluctance of some health workers to give medication to pregnant women because of pregnancy, and also pregnant women to take medication Relationship between health care provider and clients can affect the quality of service Language barrier and cultural barriers Poor perception or fear of certain interventions due to lack of information Evidence of women receiving incomplete/ inferior treatment from providers, in some areas Women often targeted more than men in programs to get children to health centres not for the health of the women per se - practical or inequitable? Women may be forced to see inferior providers if do not have enough money to pay for superior ones Anti-malarial testing protocol focuses on healthy males 	<ul style="list-style-type: none"> Resources to buy nets medication & for transport To manage healthy environment Health care is too expensive Women may have more difficulty paying for full course of own/children's treatment due to lack of control of finances Women usually responsible for bednet maintenance, but lack of control of money may hamper this Women may be less able to buy bed nets in areas where subsidies have been removed

HEALTH ISSUE/ PROBLEM	HOW BIOLOGICAL DIFFERENCES BETWEEN SEXES INFLUENCE MEN AND WOMEN	HOW GENDER NORMS/VALUES AFFECT MEN AND WOMEN (WOMEN AND BOYS)	HOW ACCESS TO AND CONTROL OVER RESOURCES AFFECT MEN AND WOMEN
Experience with health services and health providers	<ul style="list-style-type: none"> • Positive for women is that their biology allows them access to information at ANC clinics. But men do not have these same opportunities, especially poor or uneducated men. 	<ul style="list-style-type: none"> • In some communities a pregnant woman would prefer to be seen by a female health provider • Men may also prefer male health providers • Some health providers not very sympathetic may dismiss malaria symptoms as just pregnancy complaints leading to inadequate & proper investigation • Access for women are limited due to political and social constraints placed on women • Sometimes traditional healers are preferred providers to treat severe fever and symptoms of cerebral malaria. • In some cultures, mothers will go to traditional healer for fever and not seek clinical care until symptoms are severe. Delayed treatment results in increased death rates • Those who are uninformed, poor, illiterate may be fearful of accessing care • Health care providers may not have adequate time or motivation to address women's fears and deal with miscommunication problems 	<ul style="list-style-type: none"> • Facilities may not be adequate to diagnose malaria (manpower, equipment, testing materials and availability of drugs) • Men generally more able to buy better health services • Women may be taken advantage of because she cannot pay (sexually)
Outcome of health problem: e.g. recovery disability, death	<ul style="list-style-type: none"> • Pregnancy may complicate course of disease • Complications of pregnancy, anaemia, premature labour • Loss of blood in menses affects the outcome of malaria treatment • Prolonged stay in hospital 	<ul style="list-style-type: none"> • Time constraints for women delays in accessing health services. Hence slower recovery • Study in India: Male malaria mortality lower than female. In areas with strong son preference, boys may fare better than girls • Overburdened by malaria in the family • Have more need for IEC • More inclined to abandon treatment; <ul style="list-style-type: none"> → Illness takes longer → Increased risk for death/developing disabilities 	<ul style="list-style-type: none"> • Men are more likely to get proper treatment and recovery faster due to more resources at their disposal



HEALTH ISSUE/ PROBLEM	HOW BIOLOGICAL DIFFERENCES BETWEEN SEXES INFLUENCE MEN AND WOMEN	HOW GENDER NORMS/VALUES AFFECT MEN AND WOMEN (WOMEN AND BOYS)	HOW ACCESS TO AND CONTROL OVER RESOURCES AFFECT MEN AND WOMEN
Consequences (economic and social, including attitudinal)	<ul style="list-style-type: none"> • More maternal death and morbidity 	<ul style="list-style-type: none"> • If outcome is death or morbidity there is lack of breadwinner and carer. And woman may be subject to cultural practices such as wife inheritance • Because of African norm to absorb orphans, possible burden on extended family, • Communication breakdown • Self neglect, chronic fatigue, misappropriation of already meagre family funds 	<ul style="list-style-type: none"> • Worsening economic situation lack of access to money equals decreased productivity which leads to more poverty, longer illness cycle and mal-effects on socio-economic situation for the family • Lack of resources leads to non-compliance with drug regimen which could lead to resistance, lower dosing, sharing pills, finishing early, which contributes to drug resistance

Sources: adapted from Gender and Health Group 1999:26-27 (10); Hartigan et al 1997:35n-66(11); Ravindran TKS 2000 (12); Klugman, Fonn & Tint 2001:45-50 (13)
 'Are there any differences in the way in which society responds to this health problem? (e.g. Is there a difference in the way in which a woman and a man responds when a man/woman experiences this problem?)'

EXISTING ACTORS IN THE FIELD OF GENDER AND MALARIA

ORGANIZATION	CONTACT DETAILS	WEBPAGE
Association Congolaise de lutte contre les violences à l'égard des femmes et filles (ACOLVF)	Ms Micheline Ngoulou michelinengoulou@hotmail.com	
African Union (AU)	Dr Grace Kalimugogo PO Box 3243, Addis Ababa Ethiopia	www.africa-union.org
AMANET- African Malaria Network Trust Tanzania	Mr Badru B Amir AMANET PO Box 33207, Dar es Salaam Tanzania	www.amanet-trust.org
African Women's Development Fund (AWDF)	25 Yiyiwa St. Achimota Forest, Ablenkpe, Accra, Ghana PMB CT89 Cantonments, Accra, Ghana. Tel: +233 21 780477 Fax: +233 21 782 502 awdf@awdf.org	www.awdf.org
Advocacy for Women in Africa (AWA)	awa@du.co.tz	
Chaka Chaka, Yvonne	UNICEF Regional Spokesperson for Malaria. Musical artist and celebrity malaria champion, South Africa	www.princessofafrica.co.za
CORE's Malaria Working Group	The CORE Group 300 I Street, N E Washington, DC 20002	www.coregroup.org
Femmes Africa Solidarité (FAS)	Executive Director, Ms Bineta Diop Femmes Africa Solidarité 8 rue du Vieux-Billard, P.O. BOX. 5037 , 1211 Geneva 11 Switzerland info@fasngo.org	www.fasngo.org



OVERVIEW AND SCOPE	KEY ASSETS (SPECIFIC EXPERTISE)	CATEGORY
ACOLVF advocates against gender-based violence in all forms as well as providing direct support to survivors.	Gender-based violence in conflict. Networking with and bringing together women's groups in Congo.	Civil Society Organization (CSO)
Bring together different levels of African leadership to mobilise Africa to speak with one voice in fight of Malaria	Policy making expertise on treatment in clinical services in Africa, prevention, care and education, promote regional co-operation and partnerships, support recourse mobilisation efforts	IGO (Inter-governmental Organization)
To promote capacity strengthening performance and impact of Africa malaria R&D and training institutions	Experts in Good Clinical Practices (GCP), health research ethics in Africa, management and leadership of malaria research institutions, molecular biology and immunology, proposing and reporting on intervention trials, vaccinology in developing countries	Research
The African Women's Development Fund (AWDF), is the first Africa-wide fundraising and grant-making fund, which aims to support the work of organisations working to promote women's rights in Africa. The AWDF funds local, national, sub-regional and regional organisations in Africa working towards women's empowerment.	The objectives of the AWDF are fundraising within and outside Africa, grant-making on an Africa-wide basis, communicating the work and achievements of African women's organisations and providing technical assistance to grantees.	Foundation
The aim of AWA is to create a strong voice for women on the issues of development, peace and equality.	AWA focuses on advocacy with a gender focus	NGO
Yvonne Chaka Chaka is a strong celebrity advocate in the fight against malaria.	Ms Chaka Chaka advocates on behalf of women, children and men affected by the disease.	Individual
Promotes and improves the health and well-being of children and women in developing countries through collaborative NGO action and learning	Supports existing national collaborative partnerships and promotes new partnerships in which NGOs can be engaged in national level policy formulation and innovative programming for malaria prevention and control.	Member-ship association of inter-national NGOs
To empower African women to assume a leadership role in peace building and conflict resolution	Operate mainly in war-torn countries such as the Mano River and the Great Lakes regions, works closely with African sub-regional and regional organs such as ECOWAS and the African Union to ensure greater involvement of women in decision making processes for peace and development	NGO

ORGANIZATION	CONTACT DETAILS	WEBPAGE
Global Gender and Malaria Network	c/o Roll Back Malaria Partnership 20 Avenue Appia CH1211 Geneva 27 Switzerland	www.rollbackmalaria.org/globaladvocacy/networks.html
Global Health Advocates/ Avocats pour la Santé dans le Monde	Louis da Gama Global Health Advocates MEC / Probst Rechtsanwälte Marketgasse 1 CH-8401 Winterthur Switzerland ldagama@gmail.com	www.ghadvocates.org
Health Rights Action Group	Ms Milly Katana Lobbying and Advocacy Director, Health Rights Action Group, Uganda PO Box 40126 Kampala Uganda	
Parliamentarians for Women's Health	Ms Lydia Yulia Rwechungura ICW Project Officer Tanzania Tanzania@icw.org	www.womens-healthcare.org/
Kenan Institute Asia (KIASIA)	Mr James Hopkins Kenan Institute Siripanich Building 4th Amphoe Muang, Chang Mai 50200 Thailand kiasia@kiasia.org	www.kiasia.org
Kenya NGO/ Private Sector Alliance Against Malaria (KeNAAM) Kenya	MR Gerald Mwangi Walterfang CEO KeNAAM P.O. BOX 30125-00100 Nairobi-Kenya KeNaaM@amrefke.org	
Kvinnoforum- Foundation of Women's Forum Sweden	Ms Carolina Wennerholm Karlbergsvägen 77 113 35 Stockholm Sweden carjo@kvinnoforum.se	www.kvinnoforum.org



OVERVIEW AND SCOPE	KEY ASSETS (SPECIFIC EXPERTISE)	CATEGORY
A member-based advocacy network that seeks to promote societal change with a view to eliminating gender inequality as a barrier to accessing malaria control and prevention.	Through its advocacy efforts, the network makes the case for linking malaria and gender at every level.	Multi-sectoral network
Established to catalyse the emergence of a social movement against AIDS, tuberculosis, malaria and other diseases of poverty. The Global Health Advocates - GHA empowers a much larger global movement that will not tolerate the injustice that more than ten million people die every year for lack of effective medicines and supplies costing \$ 10 or less.	Advocacy on gender and malaria / women and malaria at numerous international venues and to a wide-range of decision-makers. Media attention and awareness raising.	NGO
Promoting access to health care as a human right	Community mobilisation for action , networking, co-ordination of community groups, advocacy, campaigning	CSO
PWH works with parliamentarians and communities to improve women's and girls' access to health services	Advocacy to parliamentarians and other leaders. Women's health issues, especially HIV/AIDS	NGO
Fight multi-drug resistant malaria in Thailand's border areas: to reform the public health system with decentralisation	Asia's Border Action Against Malaria Project (BAAM) with expertise on empowering communities to be more self-reliant in malaria prevention and control.	CSO
Strengthening a co-ordinating mechanism for NGOs and their partners to address RBM activities, mobilising resources for co-ordinated efforts in RBM and collating and disseminating best practices and research findings for scaling up RBM initiatives.	A forum to bring together 40 NGOs and private sector members to address RBM and Integrated Management of Childhood Illness activities.	NGO Alliance
Work with strategies for structural change, to enhance women's empowerment in their personal life, working life and at a societal level around the globe	Specialist in working with marginalized groups of women and girls through a gender and empowerment perspective. Expert on gender training and gender analysis. Host of the worldwide global network on women's health and empowerment Q Web, www.qweb.kvinnoforum.se , with resources on gender and malaria.	NGO

ORGANIZATION	CONTACT DETAILS	WEBPAGE
Malaria Knowledge Programme, Liverpool School of Tropical Medicine	Dr Rachel Tolhurst Liverpool School of Tropical Medicine Pembroke Place Liverpool L3 5QA - UK r.j.tolhurst@liv.ac.uk	www.liv.ac.uk/lstm/majorprogs/malaria/index.htm
MIM- The Multilateral Initiative on Malaria	Prof Joas B Rugemalila MIM Secretariat Coordinator, AMANET Dar es Salaam, TANZANIA Joas.rugemalila@amanet-trust.org	www.mim.su.se
Ministry of Health- National Malaria Control Program Tanzania	Dr Renata Aram Mandike PO Box 9083 Dar es Salaam Tanzania renata@nmcp.go.tz	
ONG Repères	Dr Nicole Deigna 06 BP 1728 Abidjan Il plateaux, Vallon Ste Cécile les Gobelets Sideci, villa 488 Cote d'Ivoire info@ongreperes.org	www.ongreperes.org
Nova Scotia-Gambia Association (NSGA) West Africa	Mr Burris Devanney Mrs Marie Chorr PMP 706/SerreKunda Gambia	www.novascotiagambia.com
Oumoul Khayry solidarité et entraide	Ms Oumoul Khayry Sow 155 Cité CSE BP 609 Senegal bradysow@hotmail.com	
Roll Back Malaria Partnership Secretariat	Ms Pru Smith 20 Avenue Appia CH1211 Geneva 27 Switzerland smithp@who.int	www.rollbackmalaria.org
Tanzania NGO Alliance Against Malaria (TaNAAM) Tanzania	Ms Beatrice Minja c/o The CORE Group 300 I Street NE Washington, DC 20002 bminja@africare.or.tz	www.coregroup.org



OVERVIEW AND SCOPE	KEY ASSETS (SPECIFIC EXPERTISE)	CATEGORY
Reduction of suffering by improving the management of malaria through better intervention and control of malaria.	Two cornerstone policy briefs on malaria and gender: «Gender perspectives in malaria management» and «Gender mainstreaming in health: the possibilities and constraints of involving district-level field workers»	Academic / Research
A global alliance of organisations and individuals concerned with malaria. Aims to maximise the impact of scientific research against malaria in Africa, through promoting capacity building and facilitating global collaboration and co-ordination.	Scientific expertise in antimalarial drugs and drug resistance capacity building in Africa, vaccines and immunology pathogenesis, epidemiology and clinical management of malaria	International scientific collaboration
Planning, implementation, monitoring and evaluation on malaria control on governmental level.	Mandate in making policy guidelines, provide technical provisions and promote awareness on malaria control	Government
Promote capacity strengthening and networking of malaria on family and community level.	Expertise in giving families impregnated mosquito nets and meeting places called " Les festival des familles" and " CoFA" (Comité Famille Active)	NGO
Addressing norms and barriers of malaria through national school based education program	Expertise in linking schools with communities for behavioural change for better community malaria control	NGO
An initiative called " Solidarity and help" from a young Senegalese woman, Oumoul, focuses on networking to raise peoples awareness to stop malaria	In Senegal: Information, communication and education campaigns about malaria at the grassroots level.	CSO
A Global Partnership to provide a co-ordinated international approach to fighting malaria.	Advocacy and awareness-raising, linking with multi-lateral institutions, harmonization and coordination.	Global partnership
Strengthening a co-ordinating mechanism for NGOs and their partners to address RBM activities, mobilising resources for co-ordinated efforts in RBM and collating and disseminating best practices and research findings for scaling up RBM initiatives.	Specialists in accelerating implementation and expansion of best practices, and documenting and disseminating promising innovations. Facilitates partnerships between the NGO sector and the Tanzanian government, the World Health Organisation, UNICEF, and private sector organisations.	NGO Alliance

ORGANIZATION	CONTACT DETAILS	WEBPAGE
TDR (UNICEF/UNDP/ World Bank/WHO Special programme for Research and Training in Tropical Diseases)	TDR World Health Organization 20 Avenue Appia, 1211 Geneva 27 Switzerland tdr@who.int	www.who.int/tdr/
World Health Organization (WHO), Department of Gender, Women and Health	FCH/GWH Batiment X WHO Avenue Appia 20, 1211 Geneva 27 Switzerland Fax: (41) 22 791 1585 genderandhealth@who.int	www.who.int/gender/en/

LIST OF ABBREVIATIONS

ACOLVF	Association congolaise de lutte contre les violences à l'égard des femmes et filles	FAWE	Forum for African Women Educationalists
ACTs	Artemisinin-based Combination Therapies	FCD	Foundation for Community Development, Mozambique
AIDS	Acquired Immunodeficiency Syndrome	HIV	Human Immunodeficiency Virus
AMREF	African Medical and Research Foundation	IEC	Information, Education and Communication
AMT	L'Association Tunisienne des Mères	IMCI	Integrated Management of Childhood Illness
ANCEFA	The Africa Network Campaign on Education for All	IRS	Indoor Residual Spraying
ANC	Antenatal clinic	ITN	Insecticide Treated Net
AWA	Advocacy for Women in Africa	IPT	Intermittent Preventive Treatment
AWDF	African Women's Development Fund	LSTM	Liverpool School of Tropical Medicine
FAS	Femmes Africa Solidarité		



OVERVIEW AND SCOPE	KEY ASSETS (SPECIFIC EXPERTISE)	CATEGORY
<p>Independent global programme of scientific collaboration</p> <p>1. to improve existing and develop new approaches for preventing, diagnosing, treating, and controlling neglected infectious diseases which focus on the health problems of the poor</p> <p>2. to strengthen the capacity of developing endemic countries to undertake the research required for developing and implementing these new and improved disease control approaches</p>	Research, networks, publications	Research
<p>GWH brings attention to the ways in which biological and social differences between women and men affect health and the steps needed to achieve health equity.</p>	Developing an Information Sheet on «Gender, Health and Malaria»	International Organization

MDGs	The Millennium Development Goals	TDR	UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases
MIM	Multilateral Initiative on Malaria		
NMCP	National Malaria Control Programme	UNDP	United Nations Development Programme
NGO	Non Governmental Organization		
NSGA	Nova Scotia Gambia Association	WHO	World Health Organisation
		WILDAF	Women in Law and Development in Africa
RBM	Roll Back Malaria Partnership		
SRHR	Sexual and Reproductive Health and Rights	ZMF	Zambia Malaria Foundation
SWAA	Society for Women and AIDS in Africa		
TB	Tuberculosis		

FURTHER READING, INCLUDING WORKS CITED IN THIS GUIDE

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Liverpool School of Tropical Medicine (2005) «Gender Perspectives in Malaria Management.» Malaria Knowledge Programme at Liverpool School of Tropical Medicine. http://www.healthlink.org.uk/PDFs/mkp_perspectives.pdf#search=%22gender%20and%20malaria%22

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Additional Web links

- AMREF: <http://www.amref.org>
- Eldis: <http://www.eldis.org/healthsystems/gender/>
- Global Gender and Malaria Network: <http://www.rollback-malaria.org/globaladvocacy/networks.html>
- The Malaria Knowledge Programme, LSTM: <http://www.liv.ac.uk/lstm/majorprogs/malaria/index.htm>.
- Q Web: www.qweb.kvinnoforum.se
- Roll Back Malaria Partnership: <http://www.rollbackmalaria.org>
- UNDP: <http://hdr.undp.org/reports/global/2003/faq.html#12> and <http://www.undp.org/poverty/>
- WHO Department of Gender, Women and Health: <http://www.who.int/gender/en/>
- WHO, Global Malaria Programme website: <http://www.who.int/malaria/>

Speeches

Katana, Milly at "A Briefing on gender and malaria" in Stockholm, 28 April 2006.

RAISING WOMEN'S VOICES ON MALARIA PROJECT PARTNERS



Stiftelsen Kvinnoforum/ Foundation of Women's Forum is an independent civil society organisation (CSO), that works with strategies for a structural change from a gender perspective and especially focuses on enhancing women's empowerment in their personal life, working life and at a societal level around the globe. www.kvinnoforum.org



The Roll Back Malaria Partnership. To provide coordinated international approach to fighting malaria, the Roll Back Malaria Partnership (RBM) was launched in 1998 by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP) and the World Bank. The Partnership now brings together governments of countries affected by malaria, their bilateral and multilateral development partners, the private sector, non-governmental and community-based organizations, foundations, and research and academic institutions around the common goal of halving the global burden of malaria by 2010. www.rollbackmalaria.org

Femmes Africa Solidarité (FAS). FAS is an international women's organisation with the ECOSOC Consultative Status working to empower African women to assume a leadership role in peace building and conflict resolution. FAS programmes operate mainly in war-torn countries such as the Mano River and the Great Lakes regions. As well, FAS works closely with African sub-regional and regional organs such as ECOWAS and the African Union to ensure greater involvement of women in decision-making processes for peace and development. www.fasngo.org

Multilateral Initiative on Malaria (MIM). MIM is an alliance of organizations and individuals concerned with malaria. It aims to maximize the impact of scientific research against malaria in Africa, through promoting capacity building and facilitating global collaboration and coordination. The alliance was launched in 1997 at the First MIM Pan-African Malaria Conference in Dakar, Senegal. The Secretariat is hosted, through 2010, at the African Malaria Network Trust in Dar es Salaam, Tanzania. www.mim.su.se



MBR

ROLL BACK MALARIA PARTNERSHIP