



# The Malaria Safe GUIDE

**A resource to help  
businesses in Ghana protect  
employees from malaria**



## Introduction

### What is malaria?

Malaria is an infectious disease carried by Anopheles mosquitoes. Symptoms include fevers, chills, and flu-like illness, which can be severe and can cause lasting brain damage and death. Malaria affected 212 million people around the world in 2015, and it results in an estimated 429,000 deaths worldwide annually.<sup>1</sup> In Ghana in 2015, malaria accounted for about 38% of all outpatient visits;<sup>1</sup> based on field work conducted in 2016, 37.4% of children under 5 in the country had malaria.<sup>2</sup> Malaria remains one of the country's leading causes of illness and death.<sup>3</sup> But malaria is both preventable and treatable, and there is an urgent need for successful strategies to stop it.

### What are the most effective tools to reduce malaria?

According to the World Health Organization's *World Malaria Report 2016*, one of the most common and cost-effective ways to prevent mosquito bites is sleeping under a long-lasting insecticide-treated net (LLIN). This helps prevent the spread of malaria. The use of LLINs has been shown to reduce the rates of malaria by 50%, and to reduce the rates of death due to malaria by 55% in children under 5 years in sub-Saharan Africa.<sup>2,3</sup> Some larger companies also invest in indoor residual spraying for their employees, which also prevents malaria by killing mosquitoes when they come in contact with treated surfaces. These two core malaria prevention tools, LLINs and IRS, have made major contributions to reducing malaria.

### What is Malaria Safe?

Malaria Safe is an initiative led by the Private Sector Malaria Prevention (PSMP) project of Johns Hopkins Center for Communication Programs, designed to help businesses tackle malaria as a health issue in the workplace, as well as in surrounding communities. The ultimate goal is to build a partnership of active companies that are benefiting from protecting employees and communities through Malaria Safe actions, sharing their success stories and championing the malaria cause. The *Malaria Safe Guide* was developed based on the best practices, resources, and experiences from a variety of successful companies of all sizes in Sub-Saharan Africa that have been committed to the fight against malaria. Malaria Safe actions are actions that lead to a future free of malaria. These actions are categorized into four pillars: **protection**, **education**, **visibility**, and **championing**. For example, distributing LLINs and providing LLIN education to employees and company health workers are Malaria Safe actions from the protection and education pillars.

PSMP's Malaria Safe initiative offers information, educational seminars, promotional and networking opportunities, and contacts and support for LLIN procurement for decision makers in the private sector. For more information, please visit [www.malaria-safe.org](http://www.malaria-safe.org).

<sup>1</sup> Nonvignon, Justice, et al. "Economic burden of malaria on businesses in Ghana: a case for private sector investment in malaria control." *Malaria Journal* 15.1 (2016): 454.

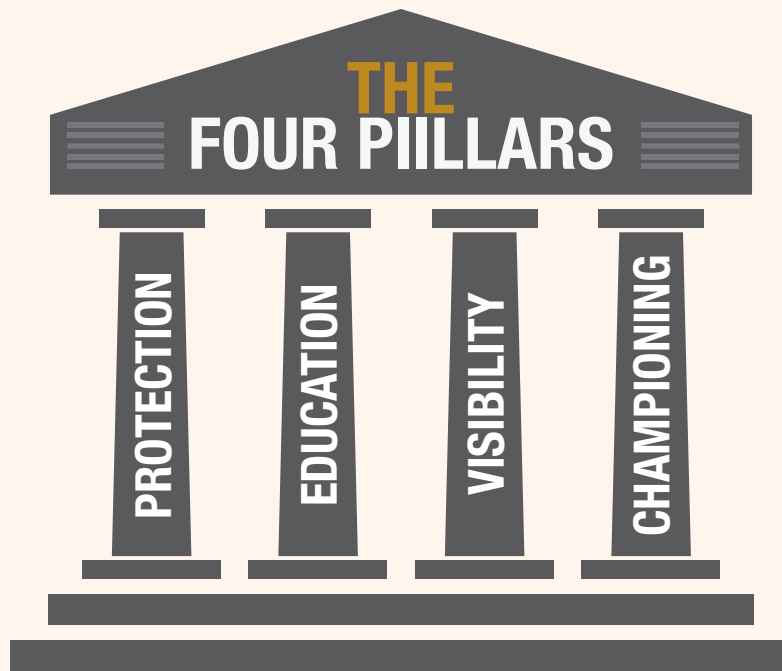
<sup>2</sup> 2016 Ghana Malaria Indicator Survey (2016 GMIS)

<sup>3</sup> World Malaria Report 2016. Geneva: World Health Organization; 2016. License: CCBY-NC-SA3.0IGO.

<sup>4</sup> Ibid

<sup>5</sup> There is not as much randomized trial data available for the results of IRS, but studies do show similar results for IRS as for LLINs for large-scale reduction of malaria transmission.

# Malaria Safe



There are four pillars to being Malaria Safe: protection, education, visibility, and championing. Business leaders who understand the four pillars can help reduce the impact of malaria on productivity, incomes, and the health of the nation. They can provide tools to help employees protect themselves from malaria and its effects. Businesses can educate their staff and their staff's families about malaria. They can help make malaria prevention efforts visible. And businesses can champion the use each of these elements to expand partnerships and inspire action.



# Business case for malaria prevention

Malaria hurts businesses in Ghana. It reduces economic growth. It burdens companies by reducing worker output, increasing operation costs (i.e., health care costs), and contributing to absenteeism, which alters timelines and targets. Malaria prevention is therefore a cost-effective business investment that has provided a rapid rate of return for small and large businesses in multiple countries and sectors.

For instance, the main symptoms of malaria include fevers, muscle pains, vomiting, and difficulty breathing. These symptoms render many malaria victims unable to work. Malaria also makes the human body susceptible to other diseases and to malnutrition, both of which result in people spending more days at home recovering instead of working. Children affected by malaria typically stay home sick rather than go to school. They fall behind quickly in academics, while adding to schools' absentee rate. When the malaria infection is in the brain, it is called cerebral malaria. Cerebral malaria can cause brain damage in younger children and result in lifelong learning difficulties. These effects of malaria render Ghana's workforce unable to operate at its full potential. This means huge losses for families, businesses, and the government, in a country where catching malaria at least once a year is largely regarded as the norm.

Yet malaria can be prevented and treated through simple prevention tools such as LLINs, the primary mosquito control intervention in Ghana. The mass distribution of LLINs has had great success in recent years; however, mass distributions alone may not be sustainable in the coming years. Ghana is now considered a lower middle-income country: This is a success, and yet it means that the country will therefore receive less funding from donors to fight malaria. This may create a funding gap, especially with respect to purchasing and distributing LLINs.

A study that included 62 businesses in the Greater Accra, Ashanti, and Western regions of Ghana revealed that between 2012 and 2014:

- Businesses in Ghana lost about US\$6.58 million (i.e., GHC 20 million) to malaria in 2014.
  - 90% of the total costs were direct costs (e.g., costs of treatment).
  - 10% of the total costs were indirect costs (e.g., productivity losses due to absenteeism).
- A total of 3,913 workdays were lost due to malaria, a number equivalent to a loss of one month's productivity per business per year.
- 73% of the workdays lost were among junior staff, while 17% and 10% were among senior staff and management, respectively.
- An average of 0.5% of businesses' annual corporate returns was spent on malaria treatment for employees and their dependents.

Business leaders are understandably concerned: They confirm that malaria affects their businesses' efficiency, employee attendance and productivity, and expenses. About 93% of business leaders in the study agreed that there is a need for the private sector to invest in malaria control.

Malaria Safe practices such as distributing LLINs, educating employees about malaria, and encouraging regular use of LLINs will lead to a malaria-free future. Ghana's private-sector leaders can join other major national and multinational companies in becoming Malaria Safe, and thus help reduce the burden of this debilitating disease on their businesses. Malaria Safe businesses in Ghana will pave the way toward better health, a more productive workforce, and increased bottom lines.

**“The Ghanaian business sector must rise to the occasion, embrace the goals of the Ghana-UK private sector malaria prevention project and its Malaria Safe initiative. Effective enrollment in this partnership and application of the Malaria Safe pillars, would go a long way in enabling the private sector, donors, civil society and government to work towards a common vision of a malaria-free Ghana.”**

Her Excellency Mrs. Rebecca Akufo-Addo,  
First Lady of the Republic of Ghana, during the Malaria Safe launch on February 22, 2017.

# Protection

Of the four pillars, protection is unique in that it demands concrete malaria control actions, while the other three pillars raise awareness. In the fight against malaria, a good defensive strategy includes both prevention and treatment. Preventing malaria has been proven to be cost-effective, especially when compared to the higher costs of treatment, absenteeism, and lost productivity. By reducing these costs, malaria prevention efforts lead to long-term health and economic benefits.

## PREVENTION

Current malaria prevention efforts focus on LLINs and IRS.

### Long-lasting insecticide-treated nets (LLINs)

As a basic guideline, PSMP recommends distributing two LLINs per employee for protection against malaria. This standard typically provides about three years of protection for a family, depending upon the size of the family, the type of net, the number of washings, and the degree of care given to the LLINs. It is important to note that multiple studies have shown that LLINs are cost-effective tools, especially when compared to the higher medical costs of diagnosing and treating malaria.

Some businesses may choose to extend their net distributions to members of their community. For instance, businesses can provide string, nails, and trained volunteers to travel from house to house and help with hanging nets. Such deeds strengthen entire populations, create healthier workforces, and minimize the risk of infection from mosquitoes.

### Indoor residual spraying

Some larger companies in Ghana—particularly those with employee living quarters—can offer IRS in addition to distributing nets. The insecticides used in IRS are safe for humans, but lethal to mosquitoes that land on walls within the structure. IRS has been shown to decrease mosquito and larvae populations, especially in communities where stagnant water is present, such as those near mines, farms, or brick-making operations. Note that IRS should be considered part of a set of malaria prevention tools.

## DIAGNOSTICS AND TREATMENT

PSMP encourages companies to make malaria treatment a part of their corporate malaria control plans.

Effective treatment of malaria requires attention to diagnosis as well as medical treatment.

### Rapid diagnostics

To be Malaria Safe, PSMP encourages companies to follow the latest guidelines for diagnosing malaria. The current policy of the World Health Organization and the Ghana National Malaria Control Programme is to use biological diagnostic tests, such as microscopy and/or rapid diagnostic tests, to determine a malaria infection, rather than making a diagnosis based on symptoms alone. Health care providers should receive training in the latest techniques and follow the most current national policies concerning treatment. PSMP partners and the Ghana National Malaria Control Programme offer educational seminars that include information on the latest techniques for diagnosis and treatment.

### Artemisinin-based combination therapies

When employees do contract malaria, as confirmed by rapid diagnostic tests, it is important they receive proper treatment. National policies prescribe treatment with some combination of artemisinin-based compounds—usually artesunate, artemether, and dihydroartemisinin. These are also known as artemisinin-based combination therapies (ACTs). ACTs are safer and more effective than monotherapies, and the Ghana Ministry of Health, Ghana Health Service, and Ghana National Malaria Control Programme are working to ensure that all medical prescribers follow the latest drug regimen. Companies can facilitate this by complying with the latest policies and advocating the use of ACTs. For information on current national policies related to malaria, please visit [www.ghanahealthservice.org/malaria/](http://www.ghanahealthservice.org/malaria/).

### Intermittent preventive treatment of malaria in pregnancy (IPTp)

Because pregnant women are highly susceptible to malaria, programs to prevent malaria in pregnancy are important. Companies can improve pregnant women's access to LLINs through routine services or through workplace opportunities where nets are distributed. Companies can also educate women and their husbands about intermittent preventive treatment of malaria in pregnancy (IPTp). IPTp is normally offered as part of antenatal care, but companies can remind their employees to ask for it if it isn't offered. The sooner



a pregnant woman receives antenatal care, the more she will know about modern preventive treatments and the fewer chances she will have of contracting malaria during her pregnancy.

Similar to pregnant women, people living with HIV/AIDS are considered at high risk for malaria. Special consideration should be given to these individuals, as co-infection with malaria can be lethal. For instance, people living with HIV/AIDS should be considered a priority for receiving LLINs, and pregnant women living with HIV/AIDS should receive an additional dose of sulfadoxine pyrimethamine (SP) during IPTp. There are national guidelines for these situations, and country partnerships with the ministers of health and malaria and HIV/AIDS programs can help clarify these procedures. Visit the Ghana Health Services website, [www.ghanahealthservice.org/malaria/](http://www.ghanahealthservice.org/malaria/), for the most current guidelines.

Being a Malaria Safe company means providing nets and net education to employees in malaria-endemic areas; training company health care staff to use current methods of diagnosis and treatment; getting employees tested for malaria; and treating employees with approved drugs.

## 10 successful actions for prevention:

1. Distribute two LLINs to each member of your company as a basic guideline for protection. To purchase nets, contact PSMP directly by emailing [ghanapsmp@gmail.com](mailto:ghanapsmp@gmail.com). Nets purchased in bulk

through PSMP will be less expensive than those purchased at a local retail shop or market.

2. Offer regular end-of-year Malaria Safe LLIN packages for your staff and their dependents as part of your company's awards and benefits.
3. Broaden your LLIN distributions to include community members—distribute nets to households in the selected community.
4. Include your company's LLIN purchases in budgets as part of the company's corporate social responsibility activities.
5. Train volunteers to help hang nets in your community. Provide nails and string. To help train employees about proper net usage and care, contact PSMP at [ghanapsmp@gmail.com](mailto:ghanapsmp@gmail.com). You can also access the information, education, and communication materials in Malaria Safe's online resources ([www.malaria-safe.org](http://www.malaria-safe.org)).
6. Send company health care staff to workshops sponsored by PSMP and/or the National Malaria Control Programme for training in proper malaria prevention interventions.
7. Follow national policy on malaria diagnosis and treatment with biological diagnostic tests and ACTs. For the safest and most effective drugs, see the latest list of World Health Organization-approved medicines in the Malaria Safe's online resources ([www.malaria-safe.org](http://www.malaria-safe.org)).
8. Establish a "malaria in pregnancy" program to encourage intermittent preventive treatment of malaria in pregnancy (IPTp). To help tailor your company's malaria control program to support pregnant women, review the guidelines included in the Malaria Safe's online resources ([www.malaria-safe.org](http://www.malaria-safe.org)).
9. Use IRS to decrease mosquito and larvae populations in your company's employee housing. To learn more about IRS, review the IRS communication toolkit produced by our partners.
10. Remove stagnant water from your property to help control mosquito larvae.



# Education



Educating employees about the dangers of malaria and the best methods of prevention and treatment is a critical first step in your malaria prevention programs. After all, the more your employees know about malaria, the better they can protect themselves against this combatable disease.

Companies can use proven training tools and resources to provide authoritative information about how malaria is contracted, what effects it has on the body, and which methods of prevention, diagnosis, and treatment are available and most effective. Health experts can clear up common misperceptions about malaria and promote the consistent use of LLINs. For example, the 2014 Ghana Demographic Health Survey found that only 52% of the households that possessed at least one LLIN had slept under it the night before. Mere access to nets is not enough to prevent malaria.

Community leaders, employers, and other organizational leaders can share important messages in myriad ways to help shape an effective strategy. Important messages are about malaria transmission, the barriers to net use, and the challenges related to getting quick and proper treatment. The greater challenge is conveying these messages in a way that turns knowledge into action.

Effective channels for malaria education in the workplace may include special educational sessions at regular staff meetings, where trained health professionals answer questions about malaria. Other effective channels may include in-house magazines, newsletters, intranet sites, or break-room bulletin boards and posters. Some companies have taken this approach to the next level by hosting themed luncheons or company-wide celebrations that reward employees for hanging and using LLINs in their homes. These celebrations emphasize the importance of proper malaria control as the means to a healthy and happy lifestyle, rather than focusing on the adverse effects of malaria. Company executives can serve as champions to employees by talking about their own family's use of LLINs. This is a great way to promote net use. Advertising, product packaging, and media provide additional opportunities to educate employees.

Whatever the channel, companies should tailor messages to address local challenges associated with malaria control. Local health workers and community-based organizations are ideal sources for this information.

## 10 successful actions for malaria education:

1. Organize informational meetings about malaria that coincide with staff meetings.
2. Host question-and-answer sessions with trained health professionals to correct your employees' misconceptions about malaria.
3. Dedicate an institution-wide celebration to malaria, host a themed luncheon, or stage a contest that rewards your employees for hanging and using LLINs in their homes.
4. Use your in-house magazine, newsletters, and break-room bulletin boards to educate employees about proper prevention and treatment.
5. Feature malaria educational materials, quizzes, and training tools on your company's health portal or intranet.
6. Recruit local health workers to train company staff and discuss local malaria-related problems.
7. Educate children by distributing coloring books, games, and music that teach about malaria.
8. Educate customers by putting malaria messaging on receipts, bills, scratch cards, and other products.
9. Sponsor malaria-themed public service announcements, radio programs, or song contests to educate community members.
10. Use the mass media as a means to educate your employees, their families, and their communities.

# Visibility



When companies have educated and protected their employees, they can then bring other companies on board by raising the profile of malaria control through marketing and other resources. This is the third pillar of being Malaria Safe: visibility.

Despite the Herculean efforts made so far to combat malaria, communities in Ghana—and throughout malaria-endemic areas in Africa—have for decades viewed malaria as an unavoidable part of life. As new companies grow to be Malaria Safe, they contribute to a movement that is gathering the strength to end malaria.

To successfully increase the visibility of the Malaria Safe movement, companies can alert the media to their Malaria Safe activities. They can incorporate malaria messaging into their product packaging and advertising. Private companies can have co-branded Malaria Safe delivery trucks, flour sacks, and gas canisters, as well as coupons, scratch cards, coffee mugs, electricity bills, and even water bottles—all to help increase recognition and appeal for the movement. Effective advertising can range from billboards and print ads to website banners and SMS communications.

Physical real estate can offer additional visibility. Companies can hang banners outside their offices or on nearby street poles to emphasize the need for urgent action. Or, a company can sponsor local football tournaments under the Malaria Safe banner, providing simple prizes such as trophies or cold beverages to draw competitors. Co-branded Malaria Safe T-shirts for volunteers, fans, and stadium workers at events is another fun idea.

**Let your workers, and the nation, know you are a Malaria Safe institution.**

## 10 successful actions for malaria visibility:

1. Don't underestimate the power of traditional media, such as billboards, newspaper ads, posters, and radio and television commercials. Disseminate press releases about your Malaria Safe activities to gain media visibility.
2. Think big. Find creative ways to put malaria messaging where people will see it. Think airport welcome signs, national monuments, presidential motorcades, parks, schools, and beyond.
3. Invite local reporters to your malaria-related events, to gain maximum exposure in the press.
4. Develop and distribute Malaria Safe souvenirs—such as Malaria Safe co-branded umbrellas—to your employees.
5. Dress up your office space with large Malaria Safe banners or street signs that passersby can see daily.
6. Leverage your retail presence by adding the Malaria Safe logo to your company uniforms, delivery trucks, coupons, receipts, and product packaging.
7. Advertise with malaria messaging at football games or other corporate-sponsored events. Provide fans with T-shirts or other souvenirs that will help them take home the message.
8. Use SMS to send Malaria Safe messages to consumers and community members.
9. Hold community events that focus on malaria, such as concerts, art shows, sleep-outs, and sports competitions.
10. Ask local or national celebrities to appear at your events or in your public service announcements.



# Championing

Good communication enhances teamwork, producing coordinated efforts that lead to success. The fourth pillar of Malaria Safe, championing, invites companies to expand their personal commitment to fighting malaria by becoming leaders at the global, national, and district levels. This means using the power of communication and partnerships to raise awareness among other corporate leaders.

Companies and leaders that join Malaria Safe find out how exciting it is to improve their community by improving lives and spreading messages of health and wellness. Malaria Safe champions direct these messages—with supportive facts and compelling testimonials—to more leaders who can bring malaria prevention to their own teams. Many business leaders all over Africa have already reached out, taken risks, and joined forces toward being Malaria Safe.

With so much at stake, these companies have addressed audiences at the World Economic Forum, the United Nations Millennium Development Goals Summit, the 2010 FIFA World Cup, and elsewhere. They speak from the heart about how they came to understand the importance of the Malaria Safe campaign and why they have taken action.

## 10 successful actions for championing malaria prevention:

1. Championing is about using what you know to convince others to join your cause. Begin by making sure your company's strategies under the other three pillars are cohesive and effective, so that your own malaria prevention program can serve as an example to others.
2. Identify malaria prevention champions within your organization. Enlist a credible spokesperson, such as a respected executive, to give weight to your organization's commitment.
3. Tailor your message to your target audience and make sure you can deliver an "elevator speech"—a convincing statement that you can deliver in a few minutes, or the time it takes to ride up or down the elevator.
4. Lobby umbrella bodies such as the Association of Ghana Industries, Ghana Chamber of Mines, and others to present Malaria Safe success stories to members.
5. Publish success stories in your company's newsletters, website, and so forth.
6. Encourage your employees and Malaria Safe spokespeople to join private-sector malaria workshop groups to share success stories with other organizations
7. Present a Malaria Safe champions trophy to your staff at the end of each year.
8. Advocate for management to allocate resources to malaria prevention as part of company benefits or health insurance plans, and to institute in-house policies to encourage employees to adhere to malaria detection, prevention, and treatment methods. Build bridges with local or national health organizations, which have many resources available to help you initiate change within your organization.
9. Form Malaria Safe partnerships with other private-sector and public-sector organizations. There is strength in numbers.
10. Contribute to national, district, and local governments (e.g., parliaments or ministries of health, sports, education, economy, agriculture, etc.) or to private foundations for malaria control activities.



# www.malaria-safe.org

Now that you understand the four pillars of the Malaria Safe campaign and have some simple ideas on how to become a Malaria Safe company, you can use the online resources at [www.malaria-safe.org](http://www.malaria-safe.org) to take your malaria control program to the next level. These resources aim to supplement, not supplant, the excellent materials available elsewhere on the frontlines. Indeed, the intent of the Malaria Safe Guide is to provide partner organizations with the most comprehensive range of materials possible. Log on to find the following Malaria Safe materials:

- **Advocacy materials**
- **Educational materials**
- **Implementation strategies**
- **Malaria control guidelines**
- **Reports**
- **Contacts**

## Publication Data

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## Information on Use

Comments and information requests may be directed to Felix Nyanor-Fosu ([ghanapsmp@gmail.com](mailto:ghanapsmp@gmail.com)).

## Referenced Sites

The Malaria Safe Guide  
[www.malaria-safe.org](http://www.malaria-safe.org)

The Private Sector Malaria Prevention project  
[www.privatesectormalaria.org](http://www.privatesectormalaria.org)  
Johns Hopkins University Center for Communication Programs  
[ccp.jhu.edu](http://ccp.jhu.edu)

## What is the Private Sector Malaria Prevention project?

Funded by the UK Department for International Development, PSMP is a three-year project implemented by the Johns Hopkins Center for Communication Programs. Together with the Ghana National Malaria Control Programme and other partners, PSMP aims to accelerate private-sector workplace investments in malaria prevention; corporate LLIN distributions to employees, their families, and their communities; and workplace malaria education sessions for company staff and community members. PSMP also works with manufacturers, distributors, and retailers to help expand the commercial sector's ability to sell LLINs in urban retail markets. The PSMP project team brings extensive experience in capacity development, social behavior change communication, and market linkages within Ghana's health sector.





