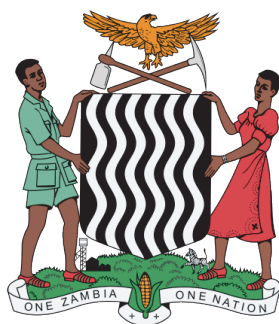


REPUBLIC OF ZAMBIA



MINISTRY OF HEALTH



NATIONAL COMMUNICATION STRATEGY FOR MALARIA ELIMINATION

2017-2021

NATIONAL MALARIA ELIMINATION CENTRE
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**NATIONAL COMMUNICATION STRATEGY
FOR MALARIA ELIMINATION**

2017-2021

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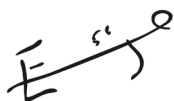
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Dr. Elizabeth Chizema-Kawesha
Director, National Malaria Elimination Programme
Ministry of Health

Preface

This communication strategy has been developed to support the National Malaria Elimination Strategic Plan (NMESP) 2017 – 2021. The document outlines the commitments of the Government of the Republic of Zambia and stakeholders to eliminate malaria in Zambia.

This strategy has been developed on the premise that communication is a cornerstone to the success of any health intervention. It is recognised that people need information to make informed decisions about their health. It follows that without information people will not make decisions or adopt desired behaviours for the elimination of malaria.

Zambia's approach has evolved from malaria control to elimination, and communication must also change to reflect the current epidemiological profile and political commitments. The national strategic plan outlines the appropriate interventions and accelerators based on an area's malaria transmission; this strategy is about accompanying those interventions, and the people who provide them, with information delivered by a trusted source and in a language and format that is suitable to the audience. In doing so, this strategy identifies barriers to desired behaviours, communication and behavioural objectives, key messages and preferred channels of communication to reach priority audiences for the greatest impact.

The Government of the Republic of Zambia remains steadfast in our political and financial commitments to eliminate malaria. This strategy will guide on engaging communities and their leaders; on advocating for informed decision-making and healthy behaviours; and on measuring progress as we pursue malaria elimination. It is my hope that this document will serve to coordinate our malaria community in the delivery of consistent and correct communication towards our united goal of a malaria-free Zambia.



Hon. Dr. Chitalu Chilufya, MP

MINISTER OF HEALTH
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Abbreviations

ACT – Artemisinin-based Combination Therapy
ALMA – African Leaders Malaria Alliance
ANC – Antenatal Care
CE – Community Engagement
CHW – Community Health Worker
COMSEA – Common Market for Eastern and Southern Africa
DHIS2 – District Health Information System 2
E8 – Elimination 8
GTS – Global Technical Strategy
HFCA – Health Facility Catchment Area
HIV/AIDS – Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
HMIS – Health Management Information System
iCCM – Integrated Community Case Management
IPTp – Intermittent Preventive Treatment in pregnancy
IRS – Indoor Residual Spraying
ITN – Insecticide-Treated Net
LLIN – Long-lasting Insecticide-treated Net
LSM – Larval Source Management
MDA – Mass Drug Administration
MIS – Malaria Indicator Survey
MOH – Ministry of Health
NMEC – National Malaria Elimination Centre
NMEP – National Malaria Elimination Programme
NMESP – National Malaria Elimination Strategic Plan
RDT – Rapid Diagnostic Test
SADC – South African Development Community
SBCC – Social Behaviour Change Communications
SMEOR – Surveillance, Monitoring and Evaluation and Operational Research
SP – Sulfadoxine-pyrimethamine
WHO – World Health Organization

Definitions

Advocacy - public support for or recommendation of a particular cause or policy.

Community engagement - the process of working collaboratively with community groups to address issues that impact the well-being of those groups.

Components A-E - Zambia's National Elimination Strategic Plan 2017–2021 aims to cover all health facility catchment populations following the step-wise approach below. Each component has a corresponding set of actions to take as malaria transmission intensity changes.

Component A - ACCELERATING SCALE-UP: OPTIMIZE VECTOR CONTROL AND CASE MANAGEMENT

Malaria control relies heavily on prevention through vector control and a case management strategy that focuses on passively detected cases. Scaling up interventions such as insecticide-treated bed nets, indoor residual spraying, timely diagnosis, and effective treatment is the first step in reducing a country's malaria burden.

Component B - BUILD INFORMATION SYSTEMS FOR ACTION: QUALITY AND TIMELY REPORTING OF INFECTIONS

Building a 'data culture' is essential to the success of the elimination strategy—ensuring that data are captured, reported, and used at every level. Once transmission has been interrupted, surveillance must be maintained, but oriented mainly towards the risks associated with case importation.

Component C - COMMUNITY CLEARANCE OF MALARIA PARASITES: POPULATION-WIDE STRATEGIES TO REDUCE TRANSMISSION

Population-wide strategies aim to clear infections from entire communities in order to achieve very low transmission. This component is used as an 'accelerator' to drive down transmission to a level where the remaining cases/infections in individuals and small foci (i.e., households and neighbourhoods) can be detected and driven out to achieve a malaria-free area.

Component D - DETECT AND INVESTIGATE INDIVIDUAL CASES: HOUSEHOLD AND NEIGHBOURHOOD STRATEGIES TO STOP TRANSMISSION

After achieving community-wide reduction to an operationally feasible level in a facility catchment area (approximately 25 cases per week per facility catchment area), the next step is to proactively find and treat those few infections as soon as they arise.

Component E - ELIMINATE: DOCUMENT AND MAINTAIN ZERO

Component E is the last step to be conducted when there is no local malaria transmission, with the objective of documenting and maintaining zero transmission. A strong surveillance and response system that is able to quickly report any cases that arise and respond with investigation and treatment will be key to maintaining elimination and preventing reintroduction.

Mobilization - Broad scale movement to engage people's participation in achieving a specific development goal through self-reliant efforts.¹

Sensitization - A process by which the community is made to be aware of and be responsive to certain ideas, events, situations or experiences.²

Social behavior change communication - In addition to providing people with information, helps people change their behaviour that exposes them to greater risks. A facilitated process that allows individuals and communities to think about their experiences performing (or not performing) a behaviour and then discussing why/how they can make the decision to change their behaviour.³

¹Session 4. Community Sensitization and Social Mobilization. *WHO Programme Managers' Training Course*. Retrieved from http://www.who.int/neglected_diseases/training/Session_4.4.pdf

² Zulu, Margaret. Community Sensitization. Retrieved from www.wopzambia.co.zm/downloads.php?filename=Sensitization.pdf

³ Session 4. Community Sensitization and Social Mobilization. *WHO Programme Managers' Training Course*. Retrieved from http://www.who.int/neglected_diseases/training/Session_4.4.pdf



Introduction

Zambia is a land-locked country located in sub-Saharan Africa, with a surface area of 752,612 square kilometres. Zambia shares borders with eight countries: Democratic Republic of Congo and Tanzania to the north, Malawi and Mozambique to the east, Botswana and Zimbabwe to the south, Namibia to the southwest, and Angola to the west. Administratively, the country is divided into ten provinces and 106 districts. Zambia's capital city is Lusaka. Approximately 60 percent of the population resides in rural areas, while 40 percent lives in urban areas. The Lusaka and Copperbelt provinces are predominantly urban, while the other provinces are largely rural.

According to the Central Statistics Office, the population of Zambia was estimated to be over 16 million in 2016, with a life expectancy of over 53 years.⁴ As of 2012, Zambia's population was served by a network of 1,956 health facilities, including 109 hospitals, more than 1500 urban and rural health centres, and over 300 health posts.⁵

Zambia's efforts to reduce the malaria burden and address other health challenges are part of a broader agenda aimed at attaining significant and sustainable development. The country's high disease burden results in high morbidity and mortality rates among the population, with significant impact on socioeconomic development. The burden is largely influenced by the high prevalence of preventable and treatable communicable diseases, such as malaria, HIV/AIDS, sexually transmitted infections, and tuberculosis. The country is also experiencing a growing burden of non-communicable diseases, particularly hypertension, cardiovascular disease, diabetes mellitus, mental health conditions, trauma, and cancer.

Though major achievements have been made in malaria control, the disease remains a significant cause of morbidity and mortality in Zambia, with one in five children under age five infected with malaria parasites.⁶ Reported malaria deaths have dramatically decreased in Zambia over the past ten years, though more than 1,800 deaths are still reported annually.⁷

⁴ *2010 Census of Population and Housing. Population and Demographic Projections 2011–2035.* (2013). Ministry of Health Zambia.

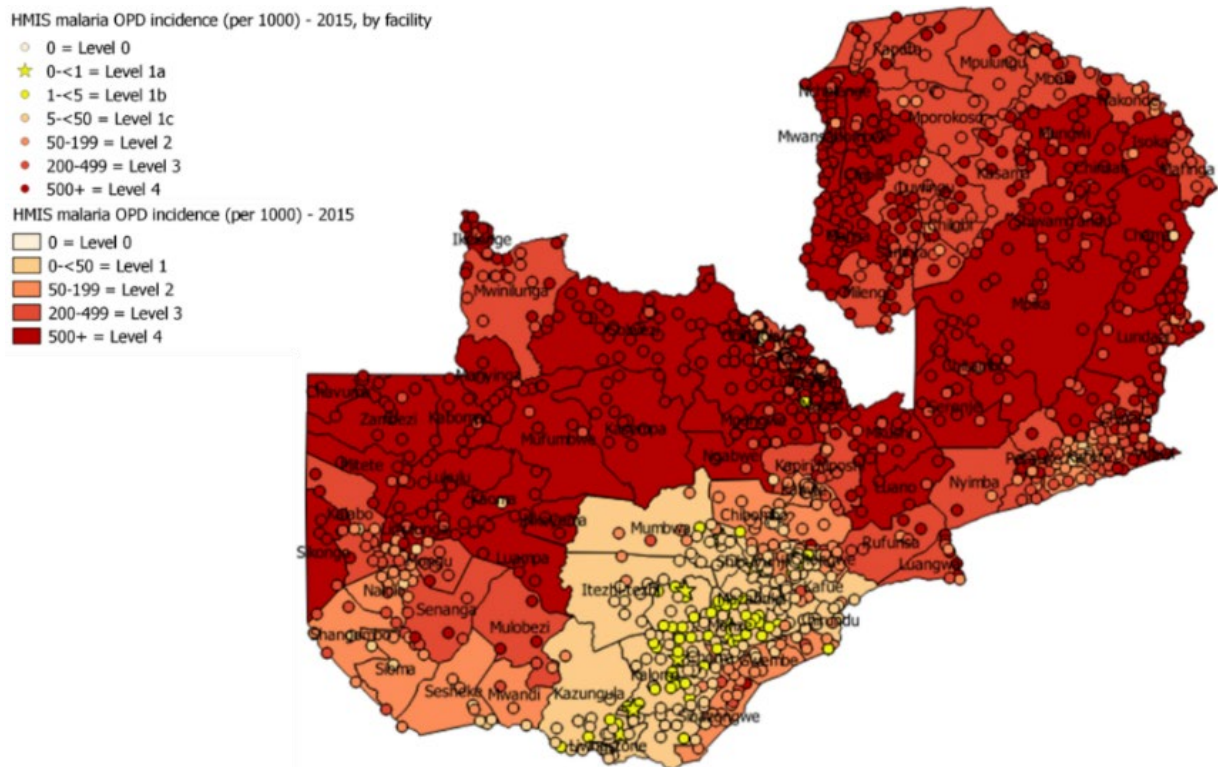
⁵ *The 2012 List of Health Facilities in Zambia.* (2013). Ministry of Health Zambia.

⁶ *Zambia 2015 National Malaria Indicator Survey.* (2015). Ministry of Health Zambia.

⁷ *Zambia Health Management Information System.* (2016). Ministry of Health Zambia.

The map in Figure 1 shows the distribution of all malaria cases in Zambian provinces, districts, and health facility catchment areas (HFCAs), with circles representing health facilities, as per 2015 health management information system (HMIS) data.

Figure 1. Malaria Incidence (per 1000) – 2015



Risk groups

Zambia has a variety of at-risk groups for malaria, which differ between risk of morbidity versus mortality, and risk of high incidence versus high prevalence. The risk groups for severe illness and death, due to a developing or compromised immune system, include young children, pregnant women, and people with chronic illness such as HIV/AIDS. The risk groups for infection include:

- Rural populations
- Populations at lower altitudes and/or living close to water bodies that may be potential mosquito breeding sites
- Poorer and/or less educated populations
- Mobile populations that move seasonally for work (e.g., farming or fishing), and thus also pose a risk to their home communities where they may reintroduce infection
- Children and adolescents, particularly those not sleeping under treated mosquito nets or accessing other vector control measures
- Military and police forces deployed on national security operations

The National Malaria Elimination Strategic Plan (NMESP) details Zambia’s transmission intensity levels and the associated proposed intervention packages, including accelerators as appropriate. This communication strategy aims to guide districts and communities on the appropriate communication and community engagement messages, materials, and activities in support of those intervention packages.

Strategy Context

Summary of the National Malaria Elimination Strategic Plan (NMESP) 2017–2021

Zambia's National Malaria Elimination Strategic Plan (NMESP) 2017–2021 is helping to steer the country towards a malaria-free future. The strategy was developed by the Ministry of Health (MOH) of the Republic of Zambia, in collaboration with partners. Zambia's national strategy is aligned with the World Health Organization (WHO) Global Technical Strategy (GTS) for Malaria 2016–2030, which outlines the goals, principles, and a strategic framework promoting the accelerated transition from a nation reducing malaria morbidity and mortality to one working to eliminate malaria transmission and preventing its reintroduction.⁸ The NMESP is also aligned with the Southern Africa Malaria Elimination 8 (E8) Initiative⁹.

Zambia's long-term development agenda is guided by the Vision 2030 Strategy, which seeks to transform Zambia into 'a prosperous middle-income nation by 2030'.¹⁰ The Vision 2030 Strategy is being implemented through successive five-year national development plans, including the National Development Plan 2017–2021. Vision 2030 identified malaria control as a priority area in terms of achieving the stated development goals.

The impact of current interventions, the commitment from the Zambian government, a keen interest among partners, and the momentum of scientific advances have all converged to create an environment of urgency around malaria elimination in Zambia. Given the current context, the **rationale for the country's elimination ambition** includes:

- The trend that in many districts, malaria incidence has been reduced to levels where transmission interruption is a feasible objective.
- The Government of Zambia's domestic financial commitments to control malaria, which have enabled the goal of elimination.
- The solid scientific evidence that has accumulated over the last decade on malaria, including newly available elimination tools, and others on the horizon.
- The acknowledgement that a delay in pursuing elimination allows the problem of drug and insecticide resistance to emerge, rendering malaria elimination and control more challenging in the future.

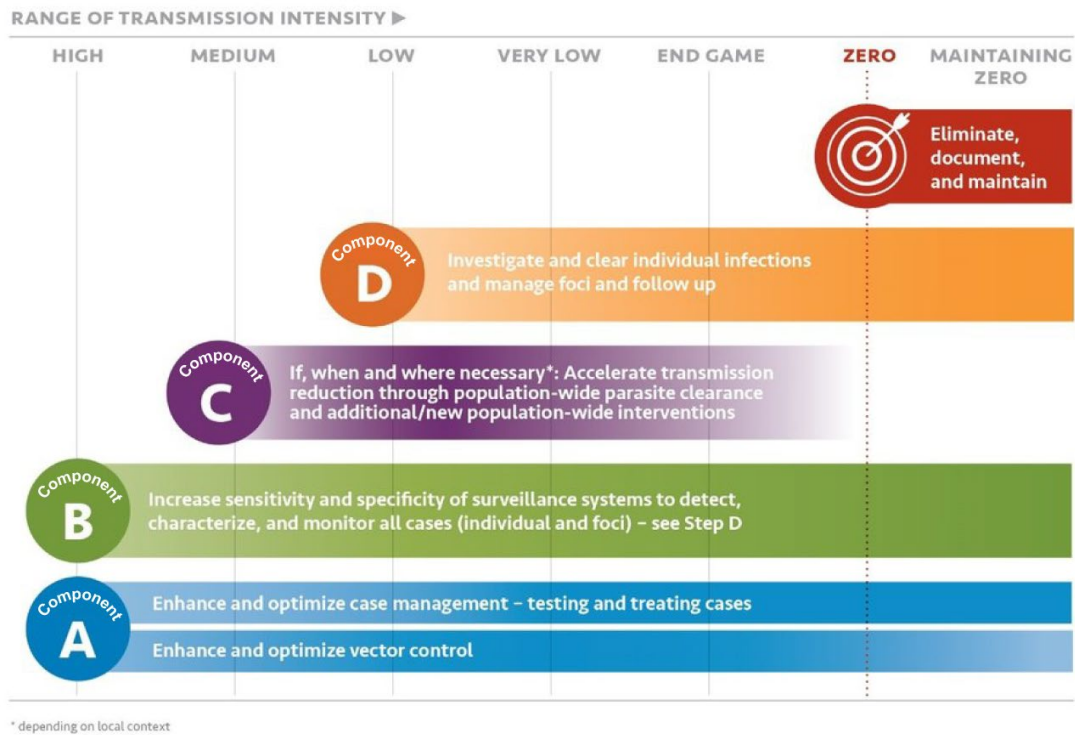
Zambia's national strategy represents an evolution from the previous two NMESPs, which aimed to reduce transmission through multiple strategies, including the distribution of long-lasting insecticide-treated mosquito nets (LLINs), increased indoor residual spraying (IRS), case management using confirmatory diagnostic tests, and treatment with artemisinin-based combination therapy (ACT). The 2017–2021 strategy is instead oriented around a step-wise approach using the A–E components of malaria elimination (see Figure 2). These components guide decision-makers on appropriate interventions based on a region's malaria transmission intensity. A chart with more detailed description of the prescribed package of interventions by malaria transmission intensity can be found in Annex 1, along with explanatory notes.

⁸ World Health Organization. (2015). *WHO Global Technical Strategy for Malaria 2016–2030*. Retrieved from http://www.who.int/malaria/areas/global_technical_strategy/en/

⁹ E8 seeks to address malaria in countries that share borders and pose a threat for reinfections within the region.

¹⁰ *Vision 2030*. (2006). Republic of Zambia.

Figure 2. Five components of malaria elimination.



The **vision** of the new national strategy is to attain a malaria-free Zambia. The **goal** is to eliminate local malaria infection and disease in Zambia by 2021, and to maintain the malaria-free status and prevent reintroduction and importation of malaria into areas where the disease has been eliminated.

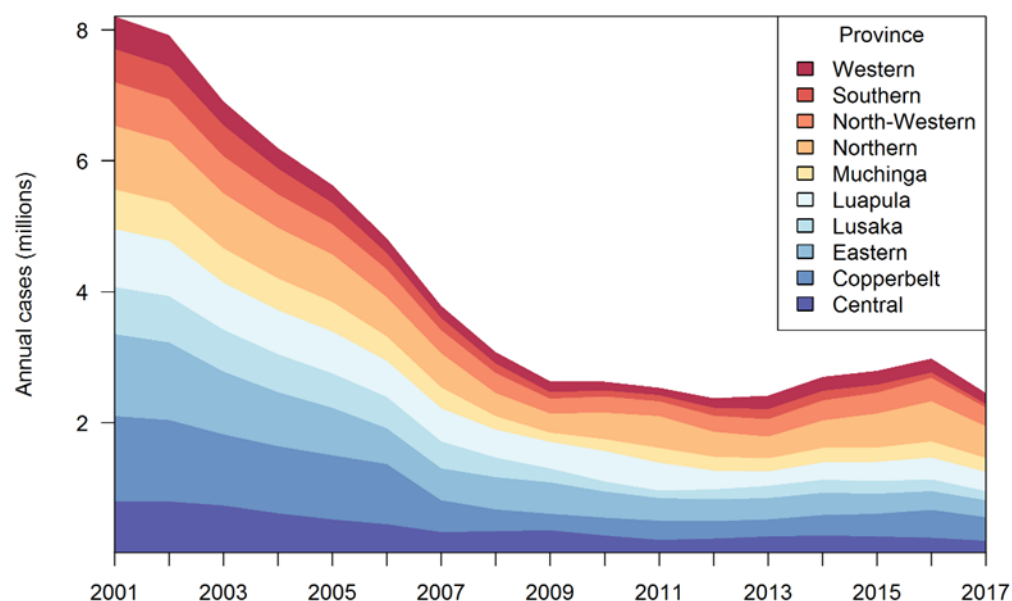
Key elimination interventions include vector control; case management; parasite clearance; health promotion; enhanced surveillance, monitoring, evaluation, and research for informed decision-making, including quality and timely facility/community reporting of cases.

Previous communication strategy 2009–2014

Significant progress towards malaria elimination in Zambia is being demonstrated across all ten provinces (see Figure 3 for annual cases per province). Since 2010, Zambia has seen an 80% decline in malaria deaths. Despite these major achievements in the fight against malaria, the disease remains a significant cause of morbidity and mortality in Zambia, with one in five children under age five infected with malaria parasites, and more than 1,000 deaths are still reported annually.

As progress moves forward and more data are collected, the elimination strategy continues to evolve, as does our communication strategy. The previous national communications strategy (2011–2014) guided malaria control and prevention interventions. In the new communication strategy, the mission has changed from reducing malaria cases and deaths to achieving and maintaining elimination. The main focus of the previous strategy was to enhance the level of community awareness and knowledge of malaria control interventions. Although increased awareness and knowledge remain critical objectives, this strategy takes the additional step of examining what it will take to eliminate malaria.

Figure 3. Annual malaria cases by province in Zambia, 2001–2017. MRC Centre for Outbreak Analysis & Modelling, Imperial College, London.



Strategic Communication for Malaria Elimination

A new direction

This communication strategy is in support of Zambia’s National Malaria Elimination Strategic Plan (NMESP) 2017–2021. As Zambia’s approach to malaria has evolved from control to elimination, the communication around this approach must also reflect the current epidemiological profile and political commitments.

This strategy is oriented around the A–E elimination components, guiding the appropriate health promotion and SBCC activities based on a region’s transmission intensity.¹¹ As the national strategy uses the health facility catchment area (HFCA) as the unit of measure, this communication strategy is focused on the community and household levels. Advocacy through community leaders will influence the uptake and ownership of the proven interventions to realize a malaria-free Zambia.

Malaria elimination will ultimately be won or lost at the household level and therefore communities must be on board with the appropriate interventions. Thus, an approach that complements the NMESP is necessary to translate and amplify the national strategy for a range of audiences, from policymakers to business leaders to families.

Each component (A–E) matrix in this strategy contains appropriate messages, messengers, and materials for the strategic interventions outlined in the national plan. These sections also identify the specific audience, behaviours, communication objectives, and barriers for each objective. It is important to note that the messages and materials are not solely for the beneficiaries of the interventions. Clinicians, spray operators, community health workers (CHWs), and others who are

¹¹ *National Malaria Elimination Strategic Plan, 2017–2021*. (2017). Ministry of Health Zambia.

trained and equipped to deliver health services must also be armed with guidance around how to communicate to patients and community members.

This strategy is primarily intended to guide district malaria focal point persons and the health facility personnel who engage with community members and CHWs. The NMESP outlines suitable interventions and accelerators based on an area's malaria transmission level; this strategy is meant to complement those interventions with information delivered by a trusted source and in a language and format that is appropriate for the audience.

Measuring community engagement and SBCC activities is essential. Thus, this strategy also provides guidance on appropriate metrics and methods for monitoring and evaluation. As the disease burden is reduced and approaches zero, this information will be critical to the successful interruption of local transmission.

Vision

A malaria-free Zambia.

Goals

- To eliminate local malaria infection and disease in Zambia by 2021.
- To maintain malaria-free status and prevent reintroduction and importation of malaria into areas where the disease has been eliminated.

Objectives

- To increase knowledge of malaria from the 2015 baseline to 100 percent by 2019.
- To improve uptake and correct use of key malaria interventions from the baseline to 90 percent by 2019.
- To arm influencers, health workers, and communities with the communication tools required to achieve elimination.
- To promote the recognition and celebration of communities that attain malaria-free status.
- To provide guidance to communities on the messages and materials needed to maintain malaria-free status and remain vigilant about imported infections and the potential for resurgence.

Guiding principles

- This malaria communication strategy is designed to complement, strengthen, and facilitate the acceptance and ownership of the elimination interventions outlined in Zambia's National Malaria Elimination Strategic Plan.
- The strategy is intended to be a guide—particularly for district malaria focal point persons and health facility personnel—and must be useful, practical, and measurable.
- As with the NMESP, this communication strategy is oriented around the elimination components, identifying the relevant health promotion and SBCC activities appropriate for an area's transmission intensity.
- Community engagement is critical; this strategy aims to move communities from acceptance to participation to ownership of the country's elimination agenda. Proper engagement requires understanding the local availability and popularity of communication platforms for a given audience.
- Malaria messaging must expand to include more than the high-risk populations of pregnant mothers, caregivers, and children under five. As malaria is reduced, asymptomatic individuals who look and feel healthy can perpetuate ongoing transmission in their communities. Malaria messaging must reflect this.

Communication and the Components of Elimination

The national elimination strategy is oriented around the A–E components of elimination. This communication strategy is similarly structured, matching transmission intensity to the appropriate application of messages, materials, and activities to facilitate the proposed interventions. Many of the descriptions herein are drawn from the NMESP to create a foundation for these components and their messages. The traditional interventions under Component A, for example, (e.g., LLINs, IRS, case management) will not be efficacious if coverage is high but uptake and use remain low.

The tables that follow each component narrative do not aim to present every detail of an intervention. Rather, they provide an outline of the approach with the priority audiences, behavioural objectives, communication objective, and example messages. A more comprehensive treatment of the intervention messaging can be found in the message guide in Annex 2.

Component A: Accelerating scale-up—optimizing vector control

Long-lasting insecticide-treated nets (LLINs) are a cost-effective method of preventing malaria. Treated mosquito nets create a physical barrier that (if used and maintained properly) prevents the night-biting malaria mosquito from coming in contact with a person while they are sleeping. Studies have shown that when used widely in a community, LLINs can significantly reduce the number of severe malaria cases. Mass distribution campaigns have been conducted every three years to ensure universal coverage. Most recently in 2017–2018, Zambia’s largest net campaign to date, distributed more than 10 million nets.



Indoor residual spraying (IRS) is a vector control tool based on mosquito behaviour. Scientists have observed that, after biting, the female *Anopheles* mosquito must rest, and it tends to do so on a wall for several hours to digest the blood. Indoor spraying applies a small amount of insecticide to the walls and ceilings of your house. The resting mosquito picks up the insecticide and within a day the mosquito will be dead. Indoor spraying, therefore, is one of the best ways to protect your family by killing the mosquitoes that spread malaria. IRS has long-lasting residual properties: the insecticide remains active on the walls for months, which is why IRS is ideally conducted prior to the rains, when malaria transmission is at its peak. The liquid insecticide dries to form a crystalline deposit on the sprayed surface. This chemical deposit is what repels and kills the mosquitoes.

Due to the scale of application, IRS is most cost-effective in urban and peri-urban areas, where houses are closer together. For this reason, IRS was initially introduced along the line of rail, while LLINs were focused in rural areas. However, the government is greatly expanding the reach of its IRS activities—the goal for the NMESP is to achieve operational coverage of over 90% of eligible structures, benefitting up to 80% of Zambia’s population.

Another form of vector control is **larval source management (LSM)**. LSM is the management of aquatic habitats (bodies of water) that are potential breeding grounds for mosquitoes, to prevent the development of adult mosquitoes that can become a malaria vector. The mosquito that carries malaria lays eggs on stagnant water, which often collects in discarded tyres, tins, clogged drainage ditches, or in puddles after a heavy rain. Therefore, encouraging communities to reduce stagnant water sites can decrease the mosquito population in an area. In some cases, water sources can also be treated with a chemical that kills mosquito larvae (larviciding).

Although larval control is part of the integrated vector management strategy of the National Malaria Elimination Programme (NMEP), it has not yet been widely implemented, as attention and resources have primarily been invested in IRS and LLINs. However, with the emergence of insecticide resistance in Zambia, larval control through environmental management and larviciding could provide an alternative tool for vector control. By combining this with improved local data, communities can help to identify and regularly treat bodies of water that are few, fixed, and findable.


Vector control communications matrix (Component A)

Table 1 describes the strategic objectives for vector control communications, with example messages to help achieve these goals. Note that vector control activities described in Component A are deployed throughout all malaria transmission intensity levels. In the matrix, the priorities and messages are organized on a scale of transmission intensity. As transmission intensity decreases, the target audience and environment in which the interventions are deployed will change, as must the communication strategy. For a more comprehensive collection of vector control messages, please refer to the message guide in Annex 2.

There are several **barriers/challenges** that prevent people from using vector control interventions:

- Poverty
- Lack of knowledge, misconceptions, safety concerns
- Physical inability (to hang nets, remove household goods, clear surroundings)
- Discomfort/inconvenience

Communication around vector control is based on the understanding of specific barriers/challenges that prevent individuals, households and communities from fully accepting and utilising vector control interventions. For example, when poverty is a challenge, people may use LLINs for fishing instead of malaria prevention. It is important to be sensitive to the competing priorities of hunger and health in these situations.



	Priority audiences	Behavioural objective	Communication objective	Example messages
VECTOR CONTROL (Component A: IRS/LLINs/LSM)	Pregnant women & children under five	All pregnant women have LLINs and use them every night, all year-round	To increase knowledge of malaria/the mosquito	<ul style="list-style-type: none"> • IRS and LLINs prevent malaria by killing or repelling mosquitoes. LSM prevents malaria by decreasing the local mosquito population.
	All household members	All household members, including adolescents, have access to LLINs and use them appropriately/ allow their households to be sprayed/clear stagnant water in surroundings	<p>To increase understanding of LLINs/IRS/LSM activities, and increase the awareness of the benefits of vector control</p> <p>To communicate the community benefit of vector control</p>	<ul style="list-style-type: none"> • IRS, LLINs, and larvicides are safe; the insecticides are not harmful to children or adults. • IRS/LLINs are free. Sleep under a net every night, throughout the year. • Prevention is better than cure. • Mosquitoes know no boundaries. Mosquitoes breeding in your area can infect your neighbours with malaria. Keeping your surroundings clean keeps your community safe from malaria. • If you are infected with malaria, mosquitoes can transmit the malaria parasites from you to others. Sleeping under a net every night and allowing your house to be sprayed stops this cycle.
	Migrant workers/mobile populations	Migrant populations carry LLINs wherever they go/have a responsibility to allow their homes to be sprayed		<ul style="list-style-type: none"> • Encourage your neighbours/community to have their houses sprayed, sleep under LLINs. • You can import malaria anywhere you travel. Not sleeping under a net puts you <i>and</i> others at risk of malaria.

Table 1. Component A (vector control, specifically), broken down by audience, objectives, and messages.

Component A: Accelerating scale-up—optimizing case management

In Zambia, case management coverage has greatly improved through the strengthening of general health services and the provision of adequate diagnostics and medicines according to national guidelines. The national objective is to ensure that 100 percent of all suspected malaria cases in all districts receive parasitological (microscopy or rapid diagnostic test [RDT]) analysis and that 100 percent of parasitologically confirmed malaria cases receive prompt (within 24 hours) and effective antimalarial treatment.

Universal coverage of case management with early diagnosis and effective treatment is a key strategy in reducing illness and death from malaria, and can be achieved by detecting infections through passive case detection or active case detection targeting high-risk groups. To achieve universal coverage of case management, communities must consider three channels of service delivery: public, private, and community-based. In areas where malaria incidence remains high, coverage should be maximised through all three channels, with efforts made to improve the quality of services delivered.



Diagnosis: The detection of malaria infection is based on blood examination by RDTs or microscopy. With quality assurance, both are now suitable for surveillance and case management.

Treatment: Treatment for malaria will be based on WHO and national treatment guidelines.¹² The current first-line therapy for the treatment of uncomplicated *P. falciparum* malaria in Zambia is a quality-assured artemisinin-based combination therapy (ACT).

Malaria in pregnancy: The national programme has developed and is implementing a well-defined policy for malaria in pregnancy, which includes the provision of free IPTp with at least four doses of sulfadoxine-pyrimethamine (SP) during pregnancy, free LLINs, and free prompt diagnosis and treatment of malaria. This intervention package is implemented as part of routine antenatal care (ANC). The high ANC attendance in Zambia, along with a long-standing, consistent policy regarding malaria in pregnancy, have resulted in high IPTp uptake, which currently stands at 90.1 percent for any dose and 60.8 percent for three doses. Use of LLINs among women of reproductive age currently stands at 58.2 percent.

¹² *Guidelines for the treatment of malaria – Third edition.* (2015). World Health Organization, Geneva.

Case management communications matrix (Component A)

Communication around case management focuses on increasing treatment-seeking behaviour. At this stage in malaria elimination/transmission intensity, most malaria cases are being treated at the health centre or clinic, and therefore require community members to understand the signs and symptoms of malaria in order to seek care.

Barriers/challenges that prevent people from seeking or accessing care range from pervasive misconceptions about malaria to the lack of transportation. The following are several barriers that should be considered:

- Lack of knowledge (e.g., signs and symptoms of malaria, which populations are most vulnerable, where to access care)
- Misconceptions (e.g., taking herbal medications or self-medicating, safety concerns about medications)
- Poverty/ transportation
- Physical inability
- Health provider behaviour (diagnosis, provision of SBCC, private motivate by profits, etc)

Note that in Table 2 the messages are not arranged per transmission intensity. This is because case management is incorporated in additional components and the necessary adjustments to messaging are addressed in those sections. It should be noted that Component A is deployed at high transmission levels, so messages are largely focused on increasing awareness and ensuring proper reporting.



	Priority audiences	Behavioural objective	Communication objective	Example messages
CASE MANAGEMENT (Component A)	Pregnant women	To increase the number of women taking at least four doses of IPTp during pregnancy	To increase the number of pregnant women and women of child-bearing age with knowledge of the importance of IPTp and early ANC	<ul style="list-style-type: none"> • A pregnant woman is more likely to have frequent and severe malaria, making her and her unborn child more vulnerable to severe anaemia and death. • Preventative medicine (IPTp) for pregnant women should be taken in order to protect the woman and her child from malaria. • IPTp is provided free. • Visit an antenatal clinic early, as soon as you suspect that you are pregnant. • To keep your family safe and healthy, encourage your partners to attend ANC and take IPTp.
	Men	To increase the number of men/husbands supporting their spouses during ANC	To increase the number of men/husbands who understand the importance of ANC	
	Household members	To increase the number of symptomatic people who seek care within 24 hours	<p>To increase the number of people with knowledge of the common symptoms of malaria</p> <p>To increase the number of people who know how to access malaria testing and treatment</p>	<ul style="list-style-type: none"> • Fever/body hotness is a common symptom of malaria. • As soon as a person has a fever or suspects malaria, get to the nearest health facility within 24 hours. • Children are particularly vulnerable to malaria. Seek testing and treatment for your child as soon as possible. • Insist on a blood test. Do not take medication without confirmed diagnosis by a trained health worker. • It is very important that you complete the full dose of medication given to you.
	Health workers	To improve the quality of care and prevent misdiagnosis	To stress the importance of conducting a malaria diagnostic test before prescribing medication	<ul style="list-style-type: none"> • Conduct a malaria diagnostic test before prescribing treatment. • Fever can be caused by other factors/diseases. • Every suspected malaria case should be confirmed by a test.

Table 2. Component A (case management, specifically), broken down by audience, objectives, and messages.

Component B: Building information systems for action—quality and timely reporting of infections

Building a strong health information system requires a series of measures to reduce transmission to sufficiently low levels so that all cases can be detected and radically cured, and all transmission foci managed. Building a ‘data culture’ is essential to the success of the malaria elimination strategy and ensuring that data are captured, reported, and used at every level of the health system. Once transmission has been interrupted, surveillance must be maintained but oriented primarily towards the risks associated with case importation.

District health information system 2 (DHIS2) is the standard system for health data aggregation and analysis in Zambia. The system should include HMIS data at all levels of the health system, including public and private clinics and hospitals.

As transmission is reduced, it becomes increasingly possible (and necessary) to track and respond to individual cases or foci. Malaria surveillance in elimination areas should focus on:

- **Rapid reporting:** ‘Test, treat, and track’—detection and notification of all malaria infections, whether symptomatic or asymptomatic, and ensuring that they are treated quickly and completely to prevent onward transmission.
- **Case investigation:** Investigation of each malaria case to determine whether it was locally acquired or imported. In areas where transmission interruption is planned, it is mandatory that all reported cases be subject to epidemiological investigation, ideally within 1–2 days (see Component D).



Information systems for action communications matrix (Component B)

The primary communication objective for Component B is to continue to increase awareness of timely, routine data on malaria cases and commodities. Component B is used to understand the malaria context and deploy resources (e.g., test kits and medication) appropriately.

Some **barriers/challenges** specific to Component B case management include:

- Inadequate vigilance in the recording or reporting of data.
- Inadequate understanding of how the data from one facility feeds into the national picture.

Table 3 builds upon the messaging strategy in Component A. Depending on the audience, there may be some overlapping objectives and messages on increasing malaria knowledge and treatment-seeking behaviours. Component B is focused on recognizing the importance of accurate, quality, timely and complete data to inform decisions, and establishing a system that delivers this information.

	Priority audiences	Behavioural objective	Communication objective	Example messages
BUILDING INFORMATION SYSTEMS FOR ACTION, QUALITY, AND TIMELY REPORTING (Component B)	Health facility staff	Record every case into the register, aim for zero clinical diagnosis Submit case management and commodity details into the reporting system on time each week Based on data, order enough supplies to provide quality health care	To increase the number of districts adopting Component B strategies To increase trust in health service delivery by clinicians To increase understanding of the importance and use of data	<ul style="list-style-type: none"> • Accurate and timely submission of malaria data informs decision-making and is essential to understanding the local malaria situation. • Tracking and reporting the malaria cases and commodity stocks at the facility level provides the national programme with key information on the location and deployment of resources. • Collecting, managing, analysing, and presenting data will be essential to malaria elimination.
	Health facility patients	Insist on blood test before receiving any malaria treatment If you test positive, adhere to the complete treatment course	To increase the understanding of malaria services available. Increase understanding on malaria treatment.	<ul style="list-style-type: none"> • Quality health care is your right. Demand-driven health care is a sign of community ownership of malaria elimination goals.

Table 3. Component B, broken down by audience, objectives, and messages.

Component C: Community clearance of parasite—population-wide strategies to reduce transmission

Malaria control relies heavily on prevention through vector control and case management based on passively detected cases. Population-wide strategies aim to clear infections from entire communities in order to achieve very low transmission. This component is used as an ‘accelerator’ to drive down transmission to a level where the remaining infections in individuals and small foci (i.e., households and neighbourhoods) can be detected and driven out to achieve a malaria-free zone. Transmission reduction strategies can include drug-based strategies (such as MDA), transmission-blocking vaccines, and perhaps in the future, innovative vector control methods like Ivermectin.¹³

Mass drug administration (MDA) targets an entire population for treatment, and can therefore clear malaria infections in individuals whose cases might not be picked up by diagnostic tools with limited sensitivity. Furthermore, if drugs with a long duration of effect are used, MDA can provide a prophylactic effect to the whole population. MDA has been used historically by many national malaria programmes, and has received renewed attention in recent years as a potential accelerator for malaria elimination. Population-wide drug-based strategies such as MDA seek to reduce malaria transmission to sufficiently low levels such that timely surveillance coupled with case investigation can treat any residual or imported cases without overwhelming the health system (see Component D). Without a strong surveillance and case investigation system to detect and treat remaining cases, malaria transmission may eventually return to pre-intervention levels.

Mass drug administration communications matrix (Component C)

As MDA is the current population-wide malaria parasite clearance activity used in Zambia, Table 4 is focused on this specific intervention. Apprehension and misconceptions about MDA are common; thus, appropriate community engagement is essential to the success of Component C. It is likely that community members will be learning a lot of new information, so a thorough communications strategy should be developed. The messaging for Component C includes information on asymptomatic malaria, an explanation of the community-wide benefits of MDA, and assurance of the safety and proven effectiveness of MDA campaigns.

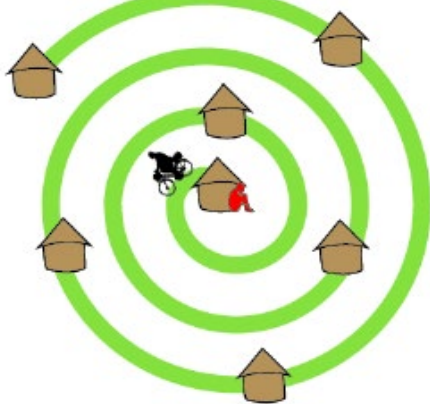
Some **barriers/challenges** specific to Component C include:

- People who are asymptomatic may not understand why they are being asked to participate.
- Mixed messages (i.e., taking malaria medicine without a confirmed malaria diagnosis).
- Reluctance to take a new drug, fear of side effects, and non-adherence to a three-day regimen.
- Objections to conventional medicines by certain religious sects.

¹³ Chaccour, C.J., Rabinovich, N.R., Slater, H., Canavati, S.E., Bousema, T., Lacerda, M. ...Kobylinski, K. (2015). Establishment of the Ivermectin Research for Malaria Elimination Network: updating the research agenda *Malaria Journal*, 14:243.

	Priority audiences	Behavioural objective	Communication objective	Example messages
COMMUNITY CLEARANCE OF MALARIA PARASITES (Component C)	All eligible community members	To increase the percentage of people participating in MDA, in particular those who move for fishing and farming (seasonal migration) and adolescents	To increase understanding of symptomatic vs. asymptomatic malaria To increase the understanding of MDA drugs	<ul style="list-style-type: none"> • Both people who feel sick and people who feel well can have malaria. • If you have the malaria parasite, mosquitoes can bite you and then transmit the disease to other people. • If all malaria parasites are removed from people in the community, the mosquitoes will no longer be able to transmit the disease. • The MDA drug is safe and effective and will be administered by a trained, well-known resident health worker. It provides month-long protection against malaria infection. • If you do not complete your course, the malaria parasite will not be completely cleared from your body, which is a risk to your recovery and to others (as mosquitoes can still pick up parasites from you). • It is important that all eligible community members participate in MDA because those who do not can endanger the rest of the community. If people are remaining with malaria parasites, they can seed ongoing transmission in their area.
	Religious leaders	To increase the percentage of people adhering to the three-day regimen	To increase awareness of the community benefits of MDA participation, and demonstrate safety by having CHWs and leaders take their first dose during a village meeting	
	Community leaders/malaria champions	To increase the number of religious leaders actively promoting MDA from their pulpits	To inspire community leaders to become 'malaria champions'	
		To increase the number of community leaders publicly testifying on the benefits of MDA		

Table 4. Component C, broken down by audience, objectives, and messages.



Component D: Detecting and investigating individual cases—household and neighbourhood strategies to stop transmission

After achieving community-wide malaria reduction at an operationally feasible level in a facility catchment area (approximately 25 cases per week per HFCA), the next step is to proactively find and treat those few remaining infections as soon as they arise. This will require rapid and intense case investigation, and will be feasible only when transmission levels are low.

Active surveillance occurs when a positive malaria case, also known as the index case, triggers a follow-up visit at the patient's home and at neighbouring homes to test and treat for malaria. Residents of each household are screened for fever, travel history, and other risk factors. The CHW records case investigations in handwritten registers, which are reviewed at monthly health facility meetings. Each step in this process has communication implications, from interacting with households to recording each case to monthly reviews of surveillance data.

Zambia's community health workers (CHWs) who undertake this important work are volunteers. They undergo rigorous training and are then equipped with tools for elimination: a bicycle, rapid test kits, malaria treatment, an apron, a t-shirt, and talk time. CHWs are chosen by their communities which affords them prestige. Still, this role can require a lot of work, which is why CHW recruitment and retention is critical to Zambia achieving its elimination goals. Additionally, the national programme is looking at different methods of motivation, including a feedback loop to share the value of their individual input into the country's elimination agenda, data dashboards (visually friendly maps and charts), and regular recognition of high performing CHWs to encourage timely and complete reporting.

The national malaria programme conducts data review meetings at the community level, where CHWs and facility supervisors share and analyze data, and discuss any challenges. This is also reinforced through the *Visualize No Malaria* partnership,¹⁴ which allows for automatic SMS alerts sent to CHWs, reminding them to submit missing reports. Another strategy being explored is the use of CHW posters that include photos of staff—these are displayed at clinics and in select areas in the community. The posters provide greater visibility of health workers, and ideally promote respect for and motivation among these volunteers, who deliver critical health services in their home communities.

¹⁴ *Visualize No Malaria* is a coalition of technology companies under the leadership of the Zambia Ministry of Health and organized by PATH and the Tableau Foundation, providing relevant visualization tools for informed decision-making on malaria elimination. For more details see <https://www.nmec.org.zm/partnership/>.

Meet your Zimba District
Community Health Worker,



**GEORGE S.
SINEKOBA**

Phone:

You can have malaria even if you have no signs and symptoms. Talk to your community health worker today about free malaria testing and treatment.

**TOGETHER, WE CAN END MALARIA
FOR GOOD.**

**ANTOMWE INGA TWABUMANA
BULWAZI BWA NTUNTUMANZI.**



Village meetings are also being convened so that community members can meet their CHW, thereby reinforcing the idea that CHWs provide high-quality, accessible and convenient malaria services. Component D trained community health workers represent another point of care; community members then do not spend as much time or transport costs to reach the nearest clinic for malaria services.

Active case investigation and surveillance communications matrix (Component D)

Many of the Component D activities are focused on CHW performance, as well as on opportunities to recognize, in front of their peers and neighbours, those individuals providing outstanding malaria services and data.

Some **barriers/challenges** specific to Component D activities include:

- Community members who are not aware of their CHWs.
- People who do not feel sick and thus do not see the need to get tested for malaria.
- Myths and misconceptions among community members regarding blood draws for malaria testing.
- Movement of people between high- and low-burden areas.

	Priority audiences	Behavioural objective	Communication objective	Example messages
DETECT AND INVESTIGATE INDIVIDUAL CASES (Component D)	All households	<p>Increase the number of community members seeking medical services from their resident CHW</p> <p>Increase the number of household members who accept malaria testing, even when they do not feel sick</p> <p>Increase the number of communities providing incentives to their CHWs</p>	<p>Increase trust in CHWs</p> <p>Increase understanding of asymptomatic malaria and the disease transmission</p> <p>Increase appreciation for the community-wide impact of a single malaria case</p>	<ul style="list-style-type: none"> • Encourage your community members to seek testing and treatment from CHWs when they suspect that they have malaria. • CHWs are volunteers in the community who have been trained to provide community health services. • CHWs provide convenient, quality, and free malaria testing and treatment. • Take the medicines provided by your CHW or health care provider, complete treatment and get cured. This way, mosquitoes cannot not spread the parasite. • Individuals who test positive for malaria must complete the treatment dosage, regardless of whether they feel sick, in order to be cured. • A CHW will follow up on malaria cases in your area to ensure that mosquitoes have not spread the parasite. You may be tested for malaria even if you are not experiencing symptoms. • Community malaria surveillance is foundational to Zambia’s elimination agenda. • A malaria-free community is achievable.
	CHWs	<p>Timely and accurate data being reported</p> <p>Quality care being administered by CHWs</p> <p>Follow up on all index cases</p>	<p>To be armed with durable and appropriate materials for engaging homes</p> <p>To communicate how CHW work is part of a larger effort to end malaria</p>	<ul style="list-style-type: none"> • As malaria is reduced, quality data will make a tremendous difference, especially in terms of determining local vs. imported infections. • CHW serve on the frontline of Zambia’s elimination agenda.

Table 5. Component D, broken down by audience, objectives, and messages.

Component E: Eliminating malaria—documenting and maintaining zero

Component E is the final step for when there is no local malaria transmission, with the objective of documenting and maintaining zero transmission. The process for documenting zero malaria should be scalable and easy to implement. A strong surveillance and response system that quickly reports all cases, and responds with investigation and treatment to prevent further spread, will be key to maintaining elimination and preventing reintroduction. The surveillance system is necessary to reach zero, and will be used to demonstrate that malaria has been eliminated. Case investigation should continue indefinitely as a mechanism to prevent reintroduction.



Eliminating malaria in an area is a time to celebrate, and a time to be vigilant. Any imported infection must be quickly identified and cleared, because if malaria is reintroduced, it will hit harder than before. To ‘sell zero’, it will be necessary to sell the benefits of zero transmission. Malaria-free zones can serve as tangible examples and powerful advocacy opportunities. Partners, including the private sector, will want to be part of the achievement. It will be important to engage a wide range of audiences, from businesses to community members to neighbouring districts.

Eliminating malaria communications matrix (Component E)

Note that the messaging focus has shifted from being primarily focused on community members to include a wider range of audiences. Communication regarding proper testing and treatment of malaria is still critical during Component E, but much of that information can be found in the Component D communications matrix or the case management messaging guide in Annex 2. Although encouraging treatment seeking is still important at this stage, the primary objective of this messaging matrix is to sell zero malaria. Messages therefore are largely focused on ‘why elimination’ and what the benefits of zero malaria are. One notable exception is, of course, the message that reaching zero malaria does not mean our work is finished. Health workers and community members must remain vigilant to prevent resurgence.

Some **barriers/challenges** specific to Component E activities include:

- Health care providers who become complacent with the current trends of malaria
- Community members may stop going to the health facility when they feel sick because they believe malaria has been eliminated
- Refusal to test when people are well (not sick)
- Movement of people from malaria endemic areas to Zero malaria areas

	Priority audiences	Behavioural objective	Communication objective	Example messages
ELIMINATING MALARIA (Component E)	Health care providers/ CHWs	Strengthen malaria surveillance systems	Increase the understanding of malaria elimination – both the requirements and the benefits	<ul style="list-style-type: none"> • No more malaria means more kids in school, less days of work lost, more space and time freed up in the clinic – a healthier and more prosperous community. • Though malaria has been eliminated, there may be cases imported from endemic areas. • All suspected cases of malaria must still be tested and treated and all CHWs need to follow up on malaria cases to prevent a resurgence of the disease. • Zero local malaria cases must be reported for 3 years to be certified malaria-free so continued surveillance is crucial. • A malaria-free community can inspire others to beat the disease as well. Congratulate your community on their great work and encourage others to end malaria for good. • Go to your CHW or health facility for malaria screening after travel.
	Community Members	Expand training to the delivery of other healthcare services, e.g., iCCM to address diarrhea and respiratory infection in children, while continuing to test and treat every suspected case of malaria	Recognise community effort in achieve malaria-free status	
		Increase/Maintain treatment seeking behavior		
	Private sector partners	Increase the number of businesses supporting malaria elimination	Increase awareness of malaria elimination campaigns in local areas	<ul style="list-style-type: none"> • Help establish your community as a malaria-free zone. “This community is malaria-free thanks in part to [Company name].” • This community has eliminated malaria. Help be a part of the movement for a healthier district.
		Sponsor, celebrate and recognize the attainment of malaria-free status		
	Neighboring areas	Increase the number of malaria free zones	Increase the understanding of malaria elimination – both the requirements and the benefits	<ul style="list-style-type: none"> • Malaria elimination is achievable. It was done here, it can be done elsewhere. • Malaria elimination starts at the community level and builds outward. Let’s keep the momentum going for a malaria-free province.

Table 6. Component E, broken down by audience, objectives, and messages.

National Communication Campaign

In 2017, Zambia rebranded its malaria programme, moving from control to elimination. This evolution was cemented on World Malaria Day, reaffirming the country's political commitment to eliminating this disease.

This communication strategy also cements the national malaria elimination slogan of *Malaria Ends With Me*, aiming to organise all malaria activities and partners—including the private sector—under a united theme, and to amplify the reach of elimination communication efforts. At the community level, it shows that village meetings and household testing are not isolated, but rather are part of a large, long-term effort led by the Ministry of Health.



Interestingly, a malaria elimination strategy and campaign is an easier sell in Mazabuka than in Mansa because, in some areas of Mazabuka, the end of malaria is in sight. Elimination exists on a continuum, from areas of high transmission to those that are nearing zero. The step-wise approach of the NMESP identifies the levels of malaria transmission intensity, and an area's 'graduation' to the next level must be celebrated. Only then will people in higher transmission areas connect their local progress against the disease to the broader elimination agenda, and view *Malaria Ends With Me* as relevant to their situation.

It is important that national campaign materials are not restricted by conventional thinking. Wall fences and posters may still have a purpose, but an audience analysis might show that social media and radio are better investments. As malaria elimination focuses on the community, it is essential that each community uses this campaign in their own way, adopting the slogan as their own.

Malaria Ends With Me branding can be added to CHW aprons, wristbands, and stickers. Another opportunity is to feature the national communication campaign in the classroom—particularly in secondary school—as surveys have shown that adolescents consistently have high parasitemia levels and low LLIN use. Thus, adolescents are a prime target population for a high-impact intervention. For students to participate and own malaria elimination, they must take an active role in the development of messages and materials that will resonate with their peers.

The national programme will provide guidance on standardised use of the *Malaria Ends With Me* slogan branding, and their website—www.nmec.org.zm—will serve as the repository for all related electronic and print materials. Radio spots, for example, should all have the uniform ending of '*remember: malaria ends with me; malaria ends with you. Together we can achieve a malaria-free Zambia*'. The website will also contain a design guide and downloadable artwork.

Strengthening the Enabling Environment

Malaria interventions need to be embedded in, and supported through, a strong enabling environment that can ensure that efforts are expanded in an effective and sustainable manner¹⁵. The main activities to contribute to this enabling environment are advocacy, community engagement, media, private sector, cross border, multi-sectoral approach and research and innovation.

Advocacy

Zambia is unique for its high level of political and financial commitment to malaria elimination. However, as malaria transmission declines, it will be challenging to maintain this level of investment and political will. Historically, countries that divert their attention away from malaria, following progress in reducing the disease to very low levels, experience a resurgence of malaria.

In its fight against malaria, Zambia has never been content with the status quo, with business as usual. Zambia was the first nation to introduce ACTs, and one of the first to use RDTs. It was the first to implement a national malaria survey, and has now completed six, which is more than any other country on the continent. Zambia will not settle for incremental progress after the huge gains achieved in the last decade. Research and routine case data show that the current package of interventions is putting a significant dent in the country's malaria burden, but more is needed to end this disease for good.

To alert Zambians to the strides that the nation continues to make, and to bring others on board and make the case for sustained and increased investment, targeted advocacy is required. This will enable the country to achieve zero local malaria transmission. The following quote provides some historical perspective on the recent progress and ambitions for the future, pulled from a respondent in the 2015 stakeholder's analysis:¹⁶

I think a lot has been done in terms of malaria control. I remember in 2005 when we were doing our strategic plan for 2006–2010 we decided to scale up a lot of our key interventions. Everyone saw this as very ambitious. We were scaling up with ITNs, IRS, and everything... There was a shift in the mind-set of people at this point—one of our objectives was to have malaria-free areas or zones. We started small and this thinking started growing.

We now must grow the thinking around malaria elimination. This begins with influencing the influencers. With members of parliament, for example, it will be key to reach out to the health subcommittee to share the elimination agenda, and use the country's rich evidence base to create compelling, constituency-level data visualizations. It is important to speak the audience's language and detail the costs associated with the national strategy, including the gap analysis and the benefits of

¹⁵ *Global Technical Strategy for Malaria 2016–2030*. (2015). World Health Organization, Geneva. Retrieved from http://www.who.int/malaria/areas/global_technical_strategy/en/

¹⁶ *Perceptions on malaria elimination in Zambia, a stakeholder analysis*. (2015.) Ministry of Health and PATH, Lusaka, Zambia.

partnership. A similar approach can be used when engaging with traditional, religious, and business leaders.

As malaria is reduced, it will be increasingly difficult to demonstrate impact. Instead, it will be critical to illustrate the benefits of living without malaria—‘selling zero’. Carving out a malaria-free zone will be a powerful, tangible demonstration of the country’s elimination agenda. This is in line with the national strategy, which states: ‘By the end of 2019: At least 50 percent of HFCAs report zero locally transmitted cases of malaria.’ Communities, and the individuals who are responsible for health service delivery, need to be recognized and celebrated for their achievements.

These individuals include the CHWs who serve on the front lines and at the community level, where malaria elimination will ultimately be won or lost. A malaria-free zone can recognize the Ministry of Health, the local chief, a telecom company, or a copper mine—high-profile recognition that shows that Zambia’s pursuit of elimination has come to life from the pages of its national elimination strategy.

Communication around this will be key—communicators will need to capture these messages in a compelling way, and ensure that events use media coverage to inspire other communities. Malaria-free zones can be celebrated during World Malaria Day, SADC Malaria Week, Child Health Week, or at a traditional ceremony.

Another advocacy opportunity is to push for verification of subnational malaria elimination by an outside entity. This will provide evidence to the region and beyond that Zambia is serious about its commitments. This may also serve to attract additional partners who want to be a part of the push for a malaria-free future.

Community engagement

Community engagement (CE) around malaria is about collaborating with communities on plans and activities prioritized by a national malaria programme. It is important that communities are part of the elimination process early on, so they can help to document what works and what does not. Additionally, this will ensure that community members are directly involved throughout the process. With a community on board, activities like health promotion, research, and interventions are far more likely to be accepted and embraced.

Zambia’s community engagement strategy aims to move communities from passive acceptance to active participation to ownership of malaria elimination.¹⁷ If there is no buy-in at the community and household levels, malaria elimination will not be achieved.

Another benefit of CE is the population’s perception of their government. Surveys continue to show a high regard for Ministry of Health personnel—including CHWs—as a trusted and preferred source of health information. This is especially true in rural settings.

¹⁷ Smith, C. & Whittaker, M. (2015). Reimagining malaria: five reasons to strengthen community engagement in the lead up to malaria elimination. *Malaria Journal*. 14:410.

Messengers

Malaria, a preventable and treatable public health concern, is primarily a disease found in rural settings. Messages and materials, therefore, must be appropriate for that audience and delivered by a trusted and suitable messenger. Community engagement in Zambia benefits from strong and respected community structures. This is especially evident with the stature of traditional leaders in rural areas who wield authority and influence in their 'chiefdom' and over their 'subjects'. Religious leaders are also highly regarded—as with traditional leaders, it is logical for CE to begin with these individuals.

By engaging an area's leadership with respect and an understanding of local traditions, there can be an opportunity, with approval of the leaders, to engage the wider community on health issues such as malaria. This strategy is described in WHO's *A Framework for Malaria Elimination*:¹⁸

Engaging the communities targeted for interventions is important for malaria elimination. The required level of coverage, particularly as malaria prevalence is reduced to very low levels, can be achieved and sustained only if communities are fully supportive. If communities feel that they 'own' programmes and are actively involved in their implementation, activities will be easier to implement, and coverage targets will be more likely to be reached.

Leading by example is another effective method of encouraging participation in elimination efforts. This has been used during MDA campaigns, for example, when there might be concerns about taking an unfamiliar medicine. As CHWs will be administering the drug, and as they are a trusted source of health information and service delivery, it can be powerful and persuasive for them to publicly 'drink' the pill during a village meeting to demonstrate that it is safe and that they are a part of the campaign.



¹⁸ *A framework for malaria elimination*. (2017). World Health Organization, Geneva.

Channels

When engaging a community, it is important to understand the communication resources available on the ground to determine what will be useful and best resonates with the target audience, e.g., community radio or a district vehicle with an audio system. District malaria focal point persons can help determine the best communication channels in a given area. For example, the Malaria Indicator Survey (MIS) data in Figure 4 show that radio might be a better investment than TV in a rural setting.

Figure 4. Chart depicting the percentage of rural homes with a radio, TV, or phone (MIS 2015).

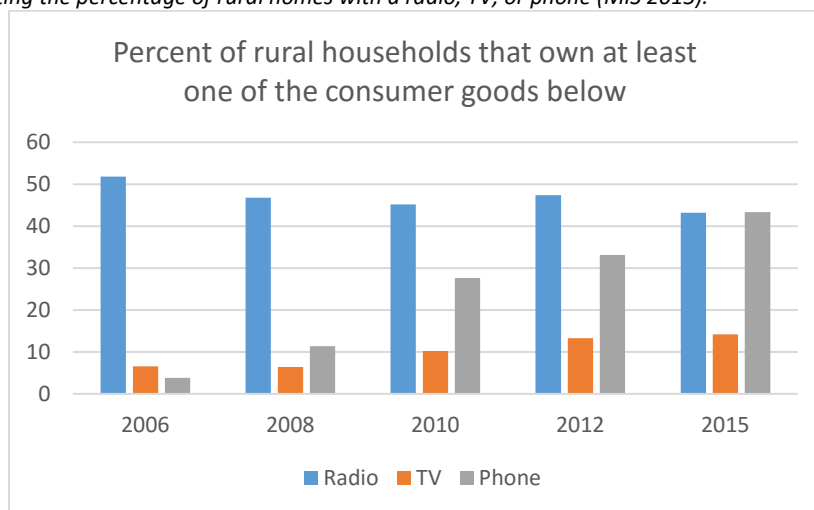


Figure 4 also implies that with the increasing coverage of phone networks in rural communities, and the related increase in ownership of mobile phones, SMS may be another communication channel to consider using to push out messages increasing awareness of upcoming campaigns or events. There is also an opportunity to use popular media platforms to streamline operational communications, such as establishing a WhatsApp group to facilitate dialogue around malaria supply chain issues.

In areas with good mobile phone networks, decent phone ownership rates, and adequate education levels, SMS messages may be suitable. In an area with passable roads but no radio signal, a more feasible strategy could be a public address system mounted to a truck that plays a recording of a traditional leader (in the local language) appealing to his community to participate in the upcoming IRS campaign.

For a larger audience, and particularly in rural areas with limited or no electricity, screenings of malaria movies can be very popular. These can attract a lot of people and, paired with facilitated discussions during or after the show, have the ability to engage communities in a variety of malaria interventions. For a more extensive list of communication channels, please refer to Annex 3.

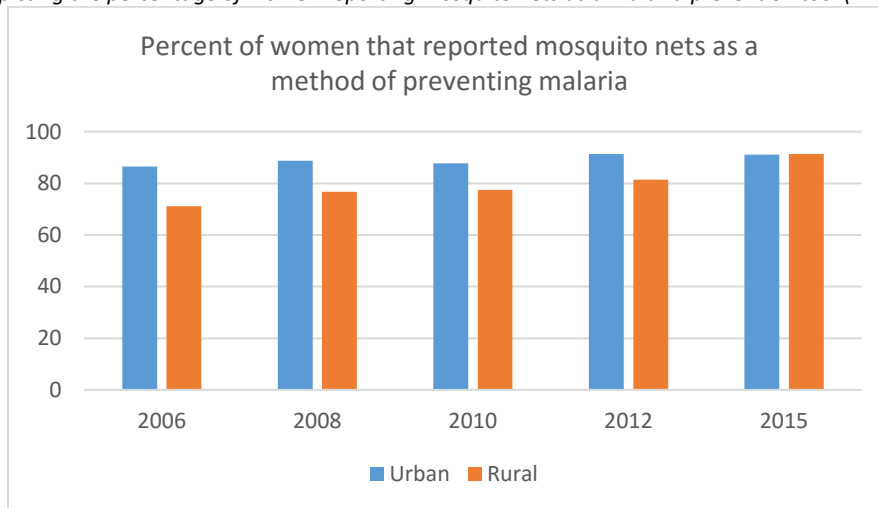
Audience

When developing malaria messages and materials, education and literacy levels are important considerations. Community health workers, for example, are chosen by their communities to deliver health services and information—they are a trusted source. Rather than arming them with text-filled flyers to be left at households, it is more effective (and cost-effective) to arm CHWs with visually-based,

laminated flip charts. These are durable and can complement household and community conversations. Additionally, training CHWs on interpersonal skills will assist them to deliver messages clearly.

Note that low literacy and education levels do not necessarily translate into low knowledge levels around malaria. Zambia has a long history of malaria messaging, which has likely contributed to high knowledge levels. For example, Figure 5 shows that in the most recent MIS, 91 percent of both urban and rural women reported mosquito nets as a malaria prevention measure.

Figure 5. Chart depicting the percentage of women reporting mosquito nets as a malaria prevention tool (MIS 2015).



It is important to be aware that malaria messages have traditionally been targeted at pregnant women and caregivers of children under five. This is understandable, as children and pregnant women have an increased risk of serious malaria infection. However, this may contribute to the belief among other populations—such as adult male heads of household—to regard malaria as primarily a concern for others. As malaria is reduced, however, asymptomatic individuals (particularly youth and non-pregnant adults) can seed ongoing transmission in their communities. Malaria messaging must reflect this. For example, surveys consistently show that adolescents have the highest rate of malaria parasitemia and the lowest levels of LLIN use. Zambia is ready for a school campaign with messages and materials that appeal to this population.

In addition, we have focused on CE for specific populations, including religious leaders (because of their influence and reach), school-age children (because of high parasitemia rates), and seasonal migrants (because of the threat of infecting home communities upon their return from fishing or farming). The latter, mobile populations, are particularly significant. Recognizing mobility as a system involving multiple demographic groups, localities, and intersecting socio-economic processes is proving increasingly important¹⁹. Reaching these groups with appropriate messages and materials, even regular malaria screenings or arming them with interventions, will be critical. When Zambia reaches the final stage of malaria elimination, the main concern will be the risk of importation from the few remaining foci in Zambia and other countries, especially malaria-endemic neighbouring countries.

¹⁹ Smith, C. & Whittaker, M. (2014). Beyond mobile populations: a critical review of the literature on malaria and population mobility and suggestions for future directions. *Malaria Journal*. 13:307.

Media

Engaging the media on malaria elimination is key to tapping communication channels that are often preferred by a specific audience, and to promoting and showcasing Zambia's journey to elimination.

There are traditional ways to engage the media, such as inviting them to a large commemoration to ensure coverage on the nightly news. In this case, it is important to provide the media with a copy of the guest of honour's remarks for use in their production. More creative ways to spread malaria elimination messages include:

- Train radio personnel to report on malaria elimination efforts. Hold an interactive workshop that results in each participant developing a radio programme that is ready to air. Partner with the private sector on media awards as incentives for sustained coverage of malaria progress.
- Use community radio presenters to translate national radio spots, so that they ring true in the ears of local listeners.
- Zambia is a huge country. To ensure that certain activities are taking place, and to showcase on-the-ground work, set up a network of trusted malaria 'reporters' who regularly submit photos and videos via WhatsApp.
- Drama is a popular medium in rural areas. If budget allows, film a scripted performance that can be screened in communities. Rural areas with a high malaria burden often have limited or no electricity. A movie night, with a facilitated discussion to emphasize the main points, will likely attract a large audience.
- Producing and broadcasting a TV show can bust your budget. An easier option is to provide transportation and allowances for a camera person and reporter to gather content from the field. Then, if properly arranged, this can be produced and aired as part of their usual media coverage.
- Social media has a growing foothold in Zambia, and the most adept users are the youth. Meanwhile, malaria parasitemia tends to be high amongst adolescents, while ITN use is low. To address this, partner with a secondary school and have students create their own programme in which they quiz classmates on their knowledge of malaria prevention. Have them discover what the malaria situation is in their community. Link them up with a local radio station to assemble the audio and air it. If the mobile phone capacity is there, use phones to edit the video and share on whatever platform the students use. Be sure to provide a link to be shared on the national malaria programme website at www.nmec.org.zm.

Private sector

Zambia has a long history of private-sector support for health, including malaria. The country was featured in a global malaria report; it examined its copper and sugar industries and the impact of malaria. The report concluded what we already knew: investment in malaria saves lives and it's good for business.

As the country pursues malaria elimination, the role of business will be increasingly critical. Relevant malaria data can be shared regularly with companies through national, provincial, and district authorities, so that they can better understand the disease burden in their areas of operation. In addition, engaging with the private sector is an opportunity to grow the country's evidence base. This can mean direct support to a research institution conducting malaria studies, or ensuring that baseline

data are in place before introducing a company-sponsored malaria initiative. Catchment area reporting can be used to measure the change in the number of people accessing malaria testing at health facilities or through CHWs; similarly, the data can track the change in numbers of confirmed malaria cases. By planning for partnerships with evaluation in mind, private-sector investment can be monitored and measured.

To partner with the private sector, a costed package of malaria activities can reveal areas of intersection between the company and national programme priorities. There are many areas in which to engage the private sector in the fight against malaria: a company with a national distribution network helps to save on transport costs by using their fleet to deliver mosquito nets; a business supports CHW incentives, including a bicycle and apron, in exchange for co-branding; branding a high-profile event with malaria elimination messages; a telecom sponsoring alerts sent via SMS to targeted areas, informing people about an upcoming activity. Where possible, include the option for data systems to properly measure and monitor the impact of investments.

Engaging the private sector can help to mobilise communities and disseminate information, especially as businesses are often quite adept at marketing. Advertising platforms (e.g., billboards, wall fences, TV, radio, newspapers/magazines, and social media) can be excellent resources for promoting malaria elimination to a range of audiences. Malaria is highest in rural areas, which can be attractive for companies looking to access emerging markets.

Zambia now has a business plan for resource mobilization which identifies the financial gaps to realising malaria elimination. In addition, Zambia was selected for the first-ever country-level End Malaria Council, a gathering of industry leaders convened by the President and chaired by the Minister of Health. Furthermore, new opportunities are arising, such as a partnership with the Copperbelt Province under the leadership of the National Malaria Elimination Centre and with Rotary as the primary partner. These developments confirm the role of business in Zambia's elimination agenda, and the opportunities to engage them in a meaningful way.

A stakeholder analysis report included this quote from a private-sector representative:²⁰

It is always nice to have a long-term partnership because you can plan and review and see what is working; strategize so there is continuity and consistency. Then you can see your resources. We can partner and bring our strengths to the table. We can actually learn from the people specializing in those areas and implement successful programs together.



²⁰ *Perceptions on malaria elimination in Zambia, a stakeholder analysis.* (2015). Ministry of Health and PATH, Lusaka, Zambia.

An example of long-term investment potential for malaria elimination is the plan to identify, carve out, and maintain malaria-free areas. These areas will have a robust surveillance system in place to maintain zero transmission status and to detect and contain any imported malaria cases. Malaria-free zones will represent a unique and historic health achievement for the government and its partners. This is also an opportunity for the private sector to assume discrete parts of a costed system, sponsoring those elements that are most aligned to the company’s social investment objectives or that have a direct impact on their operations. In exchange, the branding of a malaria-free zone can be an attractive opportunity for businesses (e.g., a billboard reading ‘You are entering a malaria-free zone...’ with the logos of companies who have supported MOH/NMEC in the effort).



Cross-border

Zambia has eight neighbours—a significant challenge to achieving malaria elimination. Cross-border areas can be difficult to track and clear infection because of the transit of people, the different governments with different data systems and policies, and because mosquitoes don’t require passports. This is how the challenge was described by a respondent in the stakeholder analysis report: ²¹

Zambia is not an island. Our elimination actually depends also on the neighbouring countries. If they are not eliminating, then we are not eliminating. People at the border areas cross at will without passports...For elimination to work, it will really depend on regional coordination.

Zambia’s participation in regional bodies also presents partnership opportunities. These include the African Union, Common Market for Eastern and Southern Africa (COMESA), WHO African Region, South African Development Community (SADC), African Leaders Malaria Alliance (ALMA), Malaria Elimination 8 (E8) groupings, Isdell:Flowers Cross-Border Initiative, among others. Engagement with these groups and with neighbouring countries promotes the regular exchange of malaria-related information of mutual interest. As progress towards malaria elimination in the region gathers momentum, it is necessary to strengthen international engagement and communication on cross-border collaborations.

In the context of malaria elimination, special attention should be given to situations where there is a risk of transmission between countries. This is an advocacy opportunity for joint statements on cross-border

²¹ *Perceptions on malaria elimination in Zambia, a stakeholder analysis.* (2015). Ministry of Health and PATH, Lusaka, Zambia.

collaboration and the development and implementation of joint action plans to facilitate malaria elimination measures in border areas. Collaboration could include district border counterparts agreeing on data collection and sharing; harmonizing messages, materials, and surveillance (as was done with Ebola); synchronizing the timing of interventions; and exchange visits of malaria personnel and community leaders.

Multi-sectoral approach

Malaria elimination will require more than the Ministry of Health and the National Malaria Elimination Centre. Within government there will be a need to partner with other ministries—a multi-sectoral approach to a disease that can affect so many areas of our lives. Here is a sampling of opportunities for collaboration:

- **Chiefs and Traditional Affairs:** This ministry can facilitate a meeting with House of Chiefs to sensitize on the elimination strategy and on using the influence of chiefs and headmen to encourage correct and consistent use of malaria interventions among their subjects. Traditional ceremonies represent a good platform to share malaria messages and materials.
- **Defence:** According to the national strategy, a risk group for infection is ‘Military and police forces deployed on national security operations’. Malaria prevention measures need to be available and prioritized with our service men and women to keep them protected from this disease. Ministry of Defence, with their extensive transport vehicles, could also assist in the distribution of LLINs or other malaria commodities.
- **Education:** Malaria elimination should to be reflected in the national curriculum, with consistent information and creative materials aimed at both primary and secondary students. Given the high parasitemia levels and low LLIN use in adolescents, a partnership with the Ministry of Education could include a school campaign, designed by students, to increase the correct and consistent use of LLINs by that population.
- **Livestock and Fisheries:** People who shift for seasonal work, typically fishers and farmers, can pose a danger of bringing malaria with them when they travel between higher and lower transmission areas. Collaboration could include working with districts on informing these populations and identifying optimal locations and times for screening for malaria.
- **Local Government and Housing:** Zambia continues to experience massive economic investment resulting in expansive housing developments. This construction activity can create mosquito breeding areas, thus policies to avert that would be beneficial.
- **Tourism and Arts:** As a tourist destination Zambia has an opportunity to share standardized promotional material on their elimination agenda to attract visitors, and for tourists in-country lodges could share further information, including how to contribute to a malaria-free future. Another consideration is a tourism ‘fee’ that would go towards funding a specific malaria activity or intervention.
- **Works and Supply:** Pits at road work construction sites fill with water during the rainy season, creating stagnant pools that are attractive to the malaria vector. Requirements for and enforcement of road contractors could limit potential breeding areas.

Research and Innovation

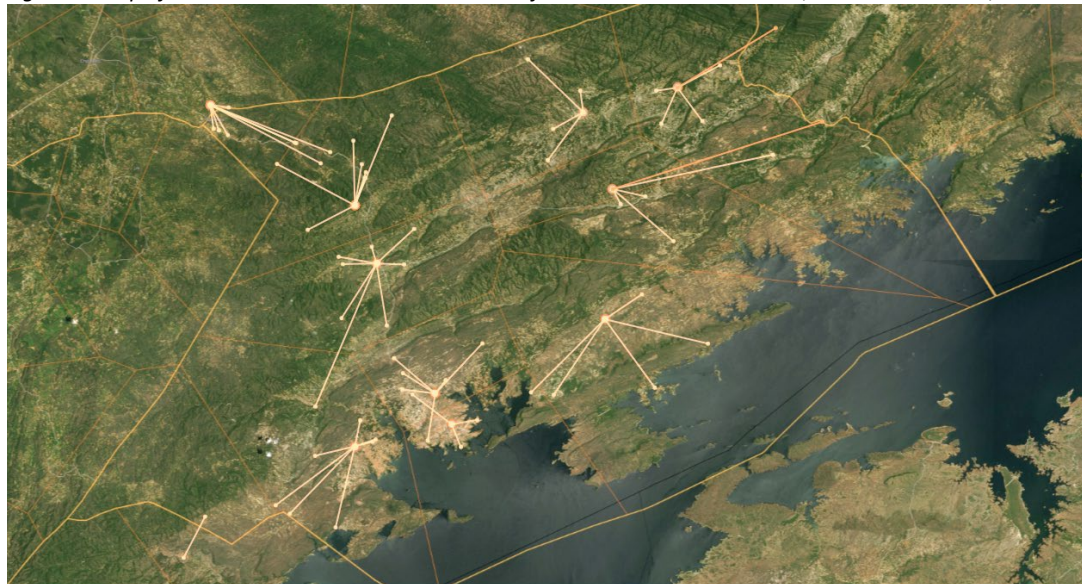
The first supporting element in the World Health Organization’s Global Technical Strategy for Malaria 2016–2030²² is ‘Harnessing Innovation & Expanding Research’. Zambia is a leader malaria control and now elimination because the country is ever testing new approaches, aiming to assess and uptake as validated tools.

Zambia has a rich foundation of malaria information, collected routinely and through periodic surveys. The country’s health promotion and SBC activities need to regularly contribute to the national evidence base. Malaria funding must include dedicated resources to research and the collection, analysis and presentation of relevant SBC data to better inform decisions and to evaluate impact.

As new approaches are tested in the field—attractive targeted sugar baits, for example, or a reactive approach for IRS or MDA where local storage and skills can enable a focused response to hotspots outside of an annual campaign—they must always be done in partnership with communities, beginning with the leaders.

Another innovation opportunity is for communication information to be collected and presented as part of Zambia’s increasingly focal data. Community health worker performance, radio station signal strength, malaria risk flow maps from mobile phone metadata tracking mobility, cell tower targeted SMS reminders to CHWs or specific populations—there is a lot information to be mined and shared in creative ways to better understand the situation and make informed decisions on developing or refining communication messages, materials and delivery. An example of Zambia’s focal data can be seen in Figure 6: a map of the distances between CHWs and that catchment’s health facility. Each small dot represents a CHW and the large dots are the health facility. This map enables the visualization of healthcare accessibility based on required distance traveled to seek care.

Figure 6: Map of distances between CHWs and health facilities in Gwembe District, Southern Province, Zambia.



²² *Global Technical Strategy for Malaria 2016–2030*. (2015). World Health Organization, Geneva. Retrieved from http://www.who.int/malaria/areas/global_technical_strategy/en/

Measuring Progress and Impact

Zambia has a rich data culture that has enabled the national programme to make significant advances in the fight against malaria. It is important that evidence-based strategies are continually being evaluated and improved upon in order to stay ahead of the disease. The implementation of this communication strategy must be complemented with routine data collection and measurement of progress towards the communication objectives.

There should be a continuous and systematic process to determine if the actions being taken are leading to the desired behaviour change. There are four key reasons why the NMEP and implementing partners should monitor the execution of the communication strategy. The execution should be monitored to provide accurate information, specifically to:

1. Make immediate management (short-term) decisions to guide strategy implementation and assure good performance
2. Hold partners accountable for implementing the strategy according to plan
3. Conduct advocacy
4. Gather input for evaluation

Measuring progress towards the communication objectives is often difficult due to the lack of quantifiable indicators in this field. However, quantitative data can be augmented with surveys and qualitative studies to provide useful insights on indicators such as knowledge, awareness, message exposure, acceptance, and uptake.

Aspects to monitor include inputs, activities, outputs, and outcomes:

- **Inputs.** Resources: staff, funds, equipment, and supplies (including availability, timeliness, quality/ condition, quantity, use, etc.)
- **Activities.** This can include mobile video shows, trainings/workshops, material development (such as research and pre-test of SBCC materials)
- **Outputs.** Immediate or direct products of the activities (e.g., number of radio spots produced, scripts developed, community meeting participants)
- **Outcomes.** The expected change as a result of the output (e.g., number of people knowledgeable about how malaria is transmitted, number of people who know the advantages of sleeping under an LLIN, number of people who know where their CHW lives, etc.)

See Annex 4 for an example indicator table.

Financing

Zambia recently underwent a costing analysis to gain a better understanding of the cost of each intervention, as well as the overall cost by year, included in implementing and reaching elimination according to the step-wise approach in the country's national strategy. Thanks to this exercise, it is possible to approach the private sector and other potential partners with detailed budgets for the different components and interventions (see Table 7):

Table 7. Interventions and associated unit costs.

Intervention	Unit cost (USD)
Indoor residual spraying (IRS)	\$4.80 per person reached
Long-lasting insecticide-treated nets (LLINs)	\$2.60 per person reached
Mass drug administration (MDA)	\$2.80 per person treated per round
Case investigation	\$1.10 per person covered by system
Rapid reporting	\$829 per health facility
Case management	\$2.50 per person treated

Zambia is politically and financially committed to the fight against malaria. In fact, Zambia is the region's leader in terms of domestic funding dedicated to eliminating malaria. It will be crucial for Zambia to ensure that adequate financial resources are available during all phases of the elimination strategy.

Zambia may see the malaria burden reduced to low levels shortly. As Zambia's income classification is upgraded, external funding may be scaled down. (Zambia will still be eligible for external funding, though the level of local counterpart financing will increase.) Because of this, Zambia must be prepared to increase national investments. This is not only a consequence of lower donor priority—indeed, as the elimination programme proceeds, costs will shift towards human resources, and, when the country is malaria-free, towards general health services.

This evolution will have communication implications. As the malaria situation improves, it will be tempting to shift funds away from malaria, including SBCC. However, if vigilance is not maintained, and communities do not own malaria elimination efforts, the disease can linger and potentially resurge. Thus, it will be important for national decision-makers to continue to prioritize malaria funding, and for district officials to spend the malaria line items in their yellow book allocation wisely.

The gap analysis in country's business plan (see Table 8) shows SBCC needs; the onus is on the national programme to consistently demonstrate the value of communications with proper impact evaluation and compelling showcasing of elimination progress.²³

²³ *National Malaria Elimination Business Plan 2018-2020*. (2018). National Malaria Elimination Centre, Lusaka, Zambia.

Table 8. Zambia Malaria Funding Request 2018–2020, Gap Analysis Summary.

Intervention	Total need (US \$)	Commitments (US \$)	Funding gap (US \$)	Within allocation (US \$)	Gap
IRS	82,530,422	65,433,026	17,097,416	17,097,416	-
Entomology	3,999,813	1,958,000	2,041,813	1,041,813	1,000,000
Larva Source Management	7,896,176	-	7,896,176	-	7,896,176
LLINs	46,535,397	27,261,507	19,273,890	11,235,741	8,038,149
RDTs	29,528,059	26,080,197	3,447,862	3,447,862	-
Microscopes	630,500	-	630,500	630,500	-
Consumables	768,325	-	768,325	768,325	-
ACTs	36,024,656	19,682,452	16,342,204	16,342,204	-
Injectable Artesunate	5,885,521	5,885,521	-	-	-
Rectal Artesunate	64,800	64,800	-	-	-
ICCM	6,890,480	2,890,480	4,000,000	4,000,000	-
Community Case Investigation	13,003,770	2,317,074	10,686,696	-	10,686,696
MDA	64,326,797	3,327,963	60,998,834	-	60,998,834
SBCC	14,120,175	7,795,29	6,324,876	2,444,742	3,880,134
Cross-Border Initiatives	1,622,135	-	1,622,135	-	1,622,135
Programme Management (NMEC)	2,494,424	-	2,494,424	2,494,424	-
Programme Management (Prov & Dist)	2,206,379	1,206,378	1,000,001	-	1,000,001
SMEOR	18,627,615	13,905,695	4,721,920	4,721,920	-
Total	337,155,464	177,808,392	159,347,072	64,224,947	95,122,125

Annex

Additional reference materials are provided in the annexes below. Annex 1 includes more detailed information on how interventions are strategically deployed according to transmission intensity. A glossary of terms is also included for clarity. A message guide by intervention is provided in Annex 2 to be used in district planning, and communication channels are detailed in Annex 3. Lastly, an example indicator table is provided in Annex 4 to assist in measuring the impact of SBCC activities and evaluating their effectiveness.

ANNEX 1: Intervention packages by transmission intensity

Table 9. Intervention packages and elimination accelerators for each malaria transmission level.

LEVEL	MALARIA INDICATOR	INTERVENTION PACKAGE/ACTIVITIES	ACCELERATOR
LEVEL 0	0 cases, no local transmission	No malaria, maintenance of malaria-free zone <ul style="list-style-type: none"> • High quality surveillance and vigilance • Vector control and case management • Epidemic Preparedness package • Case investigation capacity maintained • Chemoprophylaxis 	
LEVEL 1	1–49 cases/1,000 population/yr; Typical range <1% parasite prevalence	Very-Low malaria transmission <ul style="list-style-type: none"> • High quality surveillance • Vector control (possibly enhanced) • Community and facility-based case management • Case and foci investigation 	<ul style="list-style-type: none"> • Mass drug administration
LEVEL 2	50–199 cases/1,000 population/yr; Range 0.5%–<5% parasite prevalence	Low malaria transmission <ul style="list-style-type: none"> • Build high quality surveillance • Vector control (possibly enhanced) • Community and facility-based case management • Establish case and foci investigation capacity 	<ul style="list-style-type: none"> • Mass drug administration
LEVEL 3	200–499 cases/1,000 population/yr; Range 5%–<15% parasite prevalence	Moderate malaria transmission <ul style="list-style-type: none"> • Improve quality surveillance • Vector control (possibly enhanced) • Facility-based case management; build community case management and outreach • Establish case and foci investigation capacity 	<ul style="list-style-type: none"> • Mass drug administration (may be considered for specific areas with case investigation capacity) • Enhanced vector control if relevant
LEVEL 4	>500 cases/1,000 population/yr; Range >15% parasite prevalence	High malaria transmission <ul style="list-style-type: none"> • Build quality surveillance • Vector control to high coverage (100% coverage of IRS or sustained high coverage of LLINs) • Facility-based case management; begin to build community case management and outreach • Prepare for case and foci investigation capacity 	<ul style="list-style-type: none"> • Prepare for mass drug administration • Enhanced vector control if relevant

- **Surveillance:** Parasitological and entomological surveillance and potential use of molecular testing techniques for monitoring at clinic and community level.
- **Vector control:** Vector control at high coverage (100% IRS coverage of eligible structures or LLINs).
- **Enhanced vector control:** Introducing additional interventions where specifically appropriate (e.g., larviciding, baited traps, space spraying, co-deployment of vector control interventions, etc.); vector surveillance (abundance, species, resistance) to direct updated action.
- **Facility-based case management:** Malaria infection surveillance at health facility level, including diagnostic confirmations with RDTs and treatment, strengthened microscopy, and potentially more sensitive tools. Quality assurance of diagnosis and treatment, and supervision of community-level case management.
- **Community case management:** Extension of infection detection and case management into communities through community health worker outreach, including integrated community case management (iCCM).

- **Malaria case investigation and malaria foci investigation and transmission containment:** Extension of case surveillance at community level, including reporting of confirmed cases and investigation of households and local neighbourhoods; identification and detection of ongoing transmission foci and active clearance of local transmission.
- **Use of ‘malaria elimination accelerator strategies’ (e.g., mass drug administration, or MDA):** Time-limited and geographic targeted population-wide treatment in line the national treatment guidelines (80 percent coverage) to clear the infectious reservoir and prevent infection for a time interval.
- **Chemoprophylaxis:** When level 0 is attained in all health facility catchment populations preventive chemoprophylaxis may be implemented as required depending on vulnerability.

ANNEX 2: Message guide

General malaria messages

- Malaria is spread from person to person by the bite of an infected female mosquito.
- One cannot get malaria by exposure to too much sun, getting soaked in the rain, eating unripe mango or sugarcane, or by drinking dirty water.
- Fever/body hotness and joint pains are common symptoms of malaria; other symptoms include joint pain, nausea, headache, sweating and exhaustion.
- If you suspect malaria, go for immediate testing. Malaria can only be confirmed with a blood test.
- Malaria’s signs and symptoms can be similar to other infections, that is why a malaria test is essential to determine if you have malaria.
- Malaria is particularly dangerous during pregnancy. It can cause stillbirths, miscarriages, anaemia, and small and/or weak babies.
- Those with growing or weakened immune systems are extremely vulnerable to malaria, such as young children, pregnant women, and the chronically ill (those with HIV/AIDS, tuberculosis, etc.).
- You can have malaria even if you have no symptoms. Even without symptoms, if a mosquito bites you it can spread malaria to others in your community.
- Pregnant women need to take malaria preventive medicine during their ANC visits.
- Malaria reduces our productivity. A sick student misses her studies, and the parent taking care of her is missing out on work and earning money. All of this absenteeism—school and work—has a cumulative effect on the entire economy.
- Malaria is preventable. Sleep under a treated mosquito net; allow your home to be sprayed; keep your surroundings clean and clear of standing water to prevent mosquito breeding areas.
- Malaria is curable. Go for immediate testing at the first sign of the disease. If the test is positive, take the full course of the correct medicine.
- *Malaria Ends With Me, Malaria Ends With You.* Together, we can make this community malaria-free.

Long-lasting insecticide-treated nets (LLINs)

- A treated mosquito net is only effective if it is slept under; it serves as a physical barrier between you and the biting mosquito. The insecticide also repels and kills the mosquito.
- The mosquitoes that spread malaria usually bite people at night when they are sleeping. One of the best ways to prevent malaria is to sleep under an LLIN.
- Treated mosquito nets are safe to use. The insecticides are not harmful to children or adults.

- Mass distribution campaigns sends trained community health workers to a home to identify the needs at a house, supply new nets or replace old ones as needed, and then assist the household members in hanging the nets.
- If a free treated mosquito net is not available, buy one. It will be less expensive than the cost of suffering from malaria, plus the cost of missing school or work.
- LLINs give children and adults a peaceful sleep because they are not bothered by the buzzing and biting of mosquitoes and other insects.
- All colours of LLINs are equally good and effective and still protect users from mosquito bites.
- Treated mosquito nets are not used on beds alone; people sleeping on mats can use LLINs too.
- Everyone in your home, regardless of age, should sleep under a treated mosquito net every night.
- LLINs do not need to be retreated because they last for a long time. However, they need to be washed, inspected, and repaired (stitched)—even a very small hole in the net is big enough for a mosquito.
- Treated mosquito nets are designed in a way that allows for easy breathing while sleeping under them. A person sleeping under a net cannot suffocate.
- Treated mosquito nets should not be used as fishing nets. It is against the law, even if the net was bought from someone.
- While malaria transmission is highest during the rainy season, it is present all year-round. You should sleep under an LLIN every night all year round.
- Carry treated mosquito nets every time you travel so that you are protected from malaria.
- Educating others on the benefits of using LLINs increases utilisation of nets and reduces incidences of malaria in the community.

Indoor residual spraying (IRS)

- IRS is safe. Only a small amount of insecticide is sprayed: enough to kill mosquitoes but safe for people of all ages. The insecticides used are approved by the World Health Organization and are not harmful to children, adults, or domestic animals after spraying.
- IRS is free. The men and women who perform the spraying are responsible people from your community specially trained to spray your houses and handle your properties with caution.
- Members of households should allow Ministry of Health spray operators to enter their homes. Only properly trained and equipped spray operators are a part of the national programme's IRS efforts.
- IRS is only effective if the mosquitoes have no place to hide in your home so please allow the operators to spray all rooms, including your bedroom.
- Move furniture to the centre of the room and cover with a plastic sheet. This allows for easy access when spraying walls. Be sure to remove stored water, food and cooking utensils from your house.
- Indoor residual spraying is most effective if the whole community participates, so please encourage your neighbors to have their houses sprayed too.
- Do not be discouraged if you see mosquitoes after your house has been sprayed. Mosquitoes must come into contact with the sprayed surfaces for them to die. This means you may see the mosquitoes flying around before they rest on a sprayed surface and die.
- Indoor spraying does not cause cockroaches, bed bugs, and other insects to appear suddenly. Rather, the insecticide disturbs them, forcing all bugs to come out of their hiding places.

- Following spraying, allow at least two hours before going inside. When you do, open all windows and doors to allow air to circulate. Dispose of any dead bugs by burying or putting in a pit latrine.
- Community leaders should lead by example and allow their houses to be sprayed.

Case management (testing and treating)

- As soon as one has a fever or suspects having malaria, they should get to the nearest community health worker (CHW) or health facility within 24 hours.
- Malaria can only be confirmed with a blood test. You must demand a blood test, especially if a health worker gives you malaria medicine without doing a test. This is regardless of whether it is a government or private clinic.
- Ensure that you have a prompt malaria test whenever you suspect that you have malaria because malaria can be very deadly.
- A rapid diagnostic test (also known as an RDT) only requires a small blood sample. After only 15 minutes, a person who has given a blood sample will know if he/she has malaria.
- Taking malaria drugs without confirmation that you have malaria can lead to drug resistance. Ensure that you have a malaria diagnostic test before taking any malaria medicine.
- The blood for a malaria test is only used to test for malaria; it is not used to test for HIV/AIDS. Likewise, a positive malaria test result does not mean that you have HIV.
- Malaria testing and treatment is free and can be done in your home by a trained CHW.
- Individuals who test positive for malaria must complete the treatment dosage, whether they feel sick or not, in order to be cured.
- Once you or a member of your family tests positive for malaria, encourage other household members and neighbors to be tested for malaria.
- It is very important that you complete the full dose of medication given to you.
- Do not share your malaria medication with anyone else.

Preventive medicine for pregnant women

- Malaria is particularly dangerous during pregnancy. It can cause stillbirths, miscarriages, anaemia, and small and/or weak babies.
- Pregnant women should register at antenatal clinics early in their pregnancies and attend antenatal clinics a minimum of four times during each pregnancy. This enables them to receive the recommended doses of intermittent preventive treatment during pregnancy (IPTp)—malaria prevention medicine for pregnant women—and other essential services during pregnancy.
- The medicine is to be taken at least one month apart. It is recommended to eat something when taking the medicine for IPTp.
- The medicine given for IPTp is safe. It will not harm either the woman or her baby. The medicines do not cause the baby to stop growing, or premature birth. On the contrary, IPTp prevents premature births and low birth weight babies.

Mass drug administration (MDA)

- Both people who feel sick and people who feel well can have malaria.
- If all the malaria parasites are removed from people, the mosquitoes will no longer be able to transmit the disease.
- MDA is a proven effective intervention.
- Malaria mass drug administration medicines are safe, effective and administered by a trained, well-known resident health worker.

- Treating everyone in community for malaria will help stop people from getting sick.
- If you do not complete your course, the malaria parasite will not be completely cleared from your body and you will be able to transmit malaria parasites to other members of your family and the community.
- Although the malaria MDA medicine will provide some protection from malaria, it is important to continue with other malaria preventive measures.

ANNEX 3: Communication channels

An important aspect of a successful communications strategy is message delivery. Choosing the appropriate channel to disseminate malaria information can be just as important as the messaging itself. For example, overly complex information can confuse individuals if communicated via a radio spot where there is no opportunity for dialogue/questions. Below are different types of communication channels with guidance on when they are best employed.

Wide-reaching, generic messages, reminders/notices, simple and compelling messages:

- TV ads
- Radio spots
- SMS
- Stickers, posters, etc.
- Public address (PA) systems
- Branded materials/signs
- Social media platforms

More targeted, interactive, explanation of complex/new information:

- Door-to-door sensitization
- Community meetings
- Schools (through teachers)
- Anti-malaria school clubs
- Church announcements/discussion
- Radio shows/discussion
- Trainings/data review meetings

Community-based activities, mobilising communities, 'edutainment':

- Road shows
- Movie nights
- Community meetings
- Drama groups

Please note: Channels can fall under multiple categories so it is important that district- and provincial-level programmes evaluate the purpose and goal in choosing their preferred channel of communication. When engaging a third party to assist with knowledge dissemination, the starting point should be a workshop. Once oriented on the national and local malaria situation, and on malaria interventions and messaging, give these third parties the freedom to personalise and customise the information. By adapting it for a specific audience, the malaria messages will not only be accurate but also compelling and relevant.

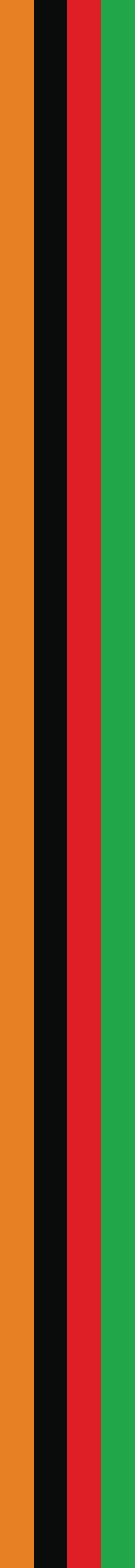
ANNEX 4: M&E framework

Below is an example indicator table adapted from the RBM Reference Guide on M&E.

Table 10: M&E framework for the Malaria Communication Strategy

Objective: To assess the contribution of the malaria communication strategy to the malaria elimination programme				
Activities	Inputs	Outputs	Outcomes (communication & behavioural)	Impact
Design, development, distribution and dissemination of SBCC materials	posters, radio spots, brochures, SMS	<ul style="list-style-type: none"> Number of SBCC materials produced, by type 	<ul style="list-style-type: none"> Knowledge and attitudes toward malaria behaviours, products and services improved Practice of healthy malaria behaviours increased 	Malaria illness & death reduced
SBCC activities carried out	Drama, health talks, radio program, door to door, public address system, radio spot, village meetings, road shows	<ul style="list-style-type: none"> Proportion of people who recall hearing or seeing any malaria message in the last 6 months Number of activities carried out, by type Number of people reached, by type of activity Number of people accessing malaria services at clinic/from CHW 	<p>Norms and Attitudes</p> <ul style="list-style-type: none"> Proportion of people with a favourable attitude toward having their households sprayed or sleeping under the LLIN the previous night Proportion of people who believe the majority of their friends and community practice the behavior Proportion of people who believe malaria elimination is possible <p>Risk and Efficacy</p> <ul style="list-style-type: none"> Proportion of people who perceive they are at risk of malaria Proportion of people who feel (perceive) that consequences of malaria are serious Proportion of people who believe that the recommended practice or product will reduce their risk of suffering from malaria Proportion of people who are confident in their ability to perform a specific malaria-related behaviour <p>Knowledge and Awareness</p> <ul style="list-style-type: none"> Proportion of people who name mosquitoes as the cause of malaria Proportion of people who know the main signs and symptoms of malaria Proportion of people who know the treatment for malaria Proportion of people who know preventive measures for malaria 	

Objective: To assess the contribution of the malaria communication strategy to the malaria elimination programme (continued)				
Activities	Inputs	Outputs	Outcomes (communication & behavioural)	Impact
Health care practitioners trained in SBCC for malaria	Training materials such as flip charts, manuals, registers	<ul style="list-style-type: none"> • Number of health care providers trained in SBCC for malaria • Proportion of people who know the cause, treatment, prevention, sign and symptoms of malaria 	<ul style="list-style-type: none"> • Proportion of pregnant women at ANC that received IPTp according to national guidelines (4 doses of IPTp) • Proportion of fever (suspected malaria) cases receiving a malaria diagnostic test • Proportion of malaria cases diagnostically confirmed • Proportion of tested cases treated according to test results (or proportion of confirmed positive cases receiving ACT) • Proportion of timely and complete facility and community malaria surveillance data 	Malaria illness & death reduced
CHWs trained in SBCC for malaria	Training materials including a copy of this strategy	<ul style="list-style-type: none"> • Number of CHWs trained in SBCC for malaria • Number of people reached with SBCC activities for malaria 	Proportion of people who practice the recommended behaviour: <ul style="list-style-type: none"> • Proportion of the population that slept under an LLIN the previous night • Proportion of women who received at least four doses of IPTp during the last pregnancy • Proportion of Children under five years who slept under an LLIN the previous night. • Proportion of household members with fever who seek treatment within 24 hours • Proportion of household members who slept under an LLIN the previous night • Increased knowledge levels as reported by Malaria Indicator Survey • Proportion of community members in neighbouring homes who accept malaria testing and treatment as part of active case follow-ups 	



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