

# ELIMINATION 8 STRATEGIC PLAN: 2015–2020

*Working towards a  
malaria-free Southern Africa*



ELIMINATION 8

ANGOLA • BOTSWANA • MOZAMBIQUE • NAMIBIA  
SOUTH AFRICA • SWAZILAND • ZAMBIA • ZIMBABWE



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### **Photos**

Front cover: Active malaria surveillance in northern Zambia allows us to find cases that would not otherwise be treated. A public health nurse explains to a mother how to crush up her baby's malaria treatment after the baby is diagnosed. © 2014 Courtesy of Photoshare.

P 4: A lab technician in Chokwe, Mozambique, reviews a blood smear for presence of malaria. © 2012 Arturo Sanabria. Courtesy of Photoshare.

P 8: Courtesy of International Organization for Migration, South Africa.

P 14: A field worker collects a blood sample for malaria testing from a child in northern Zambia. © 2012 Timothy Shields. Courtesy of Photoshare.

P 17: Courtesy of African Leaders Malaria Alliance (ALMA).

# Acronyms and abbreviations

ALMA	African Leaders Malaria Alliance
AU	African Union
CHAI	Clinton Health Access Initiative
E8	Elimination Eight
EPR	Epidemic preparedness and response
EQA	External quality assurance
GHG	Global Health Group
Global Fund	The Global Fund to Fight AIDS, Tuberculosis and Malaria
GMEP	Global Malaria Eradication Programme
ICT	Information and communication technology
IOM	International Organization for Migration
IPTp	Intermittent preventive treatment of malaria for pregnant women
IRS	Indoor residual spraying
IST	Inter-country Support Team
ITN	Insecticide treated bed nets
LLIN	Long lasting insecticide treated bed net
LSDI	Lubombo Spatial Development Initiative
MACEPA	Malaria Control and Elimination Partnership in Africa
MOZISA	Mozambique, Zimbabwe, and South Africa Initiative
NGO	Nongovernmental Organization
NMCP	National Malaria Control Programme
PCR	Polymerase chain reaction
QA/QC	Quality assurance and quality control
RBM	Roll Bank Malaria Partnership
RDT	Rapid diagnostic tests
SADC	Southern Africa Development Community
SADC MHS	Southern Africa Development Community Military Health Services
SARN	Southern African Regional Network for Roll Back Malaria
TKMI	Trans-Kunene Malaria Initiative
TZMI	Trans-Zambezi Malaria Initiative
UCSF	University of California, San Francisco
WHO	World Health Organization
WMR	World Malaria Report (of the World Health Organization)

# Contents

Acronyms and abbreviations	iii	A regional approach to elimination	8
Foreword	1	Rationale and problem statement	11
Acknowledgements	2	Elimination 8 vision and goal	14
Executive summary	3	Elimination 8 governance, structure, and management	20
Introduction	4	References	22
Regional profile	6		



# Foreword

The concept behind the **Elimination 8 (E8)** is the provision of a platform for coordinating a regional malaria elimination effort. The E8 Strategic Plan 2015–2020 outlines a set of objectives and activities whose execution will ensure the effective harmonization and synchronization of a regional approach towards elimination. It takes into account the malaria situation in the eight eliminating countries, progress that has been made by these countries in the fight against malaria, decisions taken by the political leaders at different fora, as well as the support that countries have received from partner institutions and donors. To ensure its alignment with the SADC goals, this Strategic Plan is founded on the overarching goals and principles of the SADC Protocol on Health, SADC Malaria Strategic Framework (2007–2015), SADC Malaria Elimination Framework, and the SADC Malaria Advocacy and Communication Framework. Through effective execution of this Strategic Plan, the E8 countries are well positioned to deliver on this ambitious goal, and to contribute much needed evidence and proof of concept for the long term goal of malaria eradication. The success of this strategy also contributes significantly to poverty alleviation, as well as social and economic prosperity in the greater SADC region.

This Strategic Plan will be used to more effectively target available resources as well as to mobilize additional resources. Empowerment and ownership of the implementation of interventions at the district and community level is central to the success of this strategy; remote communities, migrants, and mobile populations are most vulnerable, and they are also central to the elimination strategy.

Over the course of this strategy, the E8 will work towards interruption of the transmission of malaria within the boundaries of in Botswana, Namibia, South Africa, Swaziland, and southern Zimbabwe. In Angola, Mozambique, Zambia, and the rest of Zimbabwe, consolidation of control activities will begin the transition to elimination for this second tier of countries, while also supporting the containment of transmission and prevention of reintroduction from those areas which will have achieved elimination.

The E8 Ministers call for technical and funding partners to support the activities in this Strategic Plan, contributing to the long term development strategy for this region. There remains a strong imperative and commitment to achieving maximum value for money, full transparency, accountability, and good governance of the investments which are being put towards malaria.

The malaria burden among the countries of the E8 ranges between 0.23 and 371 malaria cases per 1,000 people. The goal of eliminating the local transmission of malaria within the boundaries of these eight countries is an ambitious, but attainable one. It is a goal whose success is anchored in the extent of meaningful and strategic coordination among the eight countries.



Dr. Richard Nchabi Kamwi  
E8 Chairperson, Minister of Health and Social Services,  
Namibia

# Acknowledgements

The development of the E8 Strategic Plan was the result of a collaborative effort by a wide range of partners. The widely participatory process demonstrates the commitment by E8 states and its partner institutions to malaria control and elimination in the region. The E8 would like to acknowledge the many individuals and organizations that participated in the development of the E8 Strategic Plan.

- National Malaria Control Programme, Angola
- National Malaria Control Programme, Botswana
- National Malaria Control Programme, Mozambique
- National Malaria Control Programme, Namibia
- National Malaria Control Programme, South Africa
- National Malaria Control Programme, Swaziland
- National Malaria Control Programme, Zambia
- National Malaria Control Programme, Zimbabwe
- African Leaders Malaria Alliance
- Clinton Health Access Initiative
- Discovery Health Group, South Africa
- Global Health Group of the University of California, San Francisco
- SADC Military Health Services
- International Organization of Migration of South Africa
- Southern African Regional Network—Roll Back Malaria Partnership
- World Health Organization Inter-country Support Team

The E8 and E8 communities look forward to working with all stakeholders, partners, and funders towards the execution of the E8 Strategic Plan and towards the elimination of malaria in the E8 region.

# Executive summary

The Africa Malaria Elimination Campaign—launched in 2007 by the African Union (AU) Conference of Ministers of Health—committed to gradual movement from malaria control to elimination, beginning with the subset of countries where elimination was considered most feasible. The Southern Africa Development Community (SADC) similarly pledged to eliminate malaria from southern Africa, identifying six countries well positioned to begin the orientation towards elimination; these are Botswana, Namibia, South Africa and Swaziland, as well as the island states of Zanzibar and Madagascar. The SADC Malaria Elimination Framework provides guidance on the roadmap towards a SADC free of malaria, and urges member states to develop and implement malaria elimination strategic plans.

The concept of the Elimination 8 (E8) brings together the four mainland countries of the six countries targeted for malaria elimination within the SADC Framework — Botswana, Namibia, South Africa, and Swaziland.<sup>1</sup> These four countries—considered the frontline countries—are well positioned to begin the reorientation towards elimination within southern Africa. In order to successfully eliminate, these four countries will need to collaborate closely with their neighbors to the north—Angola, Mozambique, Zambia, and Zimbabwe—who face a relatively higher transmission of malaria. This “second” line of countries will follow suit in the elimination of malaria, and thus lay the foundation for the gradual expansion of malaria-free areas within SADC. The eight Ministers of Health thus agreed on the formation of the E8 as a platform for deliberation and collaboration among the four front line countries and the four second-line countries.

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<sup>1</sup> In 2007, SADC identified six countries as having the greatest potential to eliminate malaria by 2015—Botswana, Namibia, South Africa and Swaziland, as well as the island states of Zanzibar and Madagascar.

Among the E8 countries, malaria cases have decreased by nearly 50% over the past five years, declining from 14 million cases in 2007 to 8 million cases in 2012. The goal of eliminating the local transmission of malaria within the boundaries of these eight countries is an ambitious, but attainable one. However, the success of this strategy is inextricably linked to the region’s ability to mount a coordinated response, limiting the importation of malaria from more highly endemic areas to those aiming to interrupt transmission, harmonizing mutually reinforcing policies across the region, and developing regional repositories of specialist skills and services to support eliminating countries, such as quality assurance, diagnosis and entomology.

The E8 Strategic Plan outlines a series of strategic objectives and activities designed to coordinate member states and partners as they jointly pursue elimination strategies. While some effort will be made to strengthen implementation at the country level, the core objectives of the E8 focus largely on enhancing activities at the cross-border and regional level, rather than duplicating country efforts. The core strategic objectives of the E8 are as follows:

- 1. To strengthen regional coordination in order to achieve elimination in each of the E8 member countries;**
- 2. To elevate and maintain the regional elimination agenda at the highest political levels within the E8 countries;**
- 3. To promote knowledge management, quality control, and policy harmonization to accelerate progress towards elimination;**
- 4. To facilitate the reduction of cross-border malaria transmission; and**
- 5. To secure resources to support the regional elimination plan, and to ensure long term sustainable financing for the region’s elimination ambitions.**

# Introduction





In 2007, during the third session of the African Union (AU) Conference of Ministers of Health, member states launched the Africa Malaria Elimination Campaign, committing to transition eligible countries from malaria control to malaria elimination. Later that year, the Southern Africa Development Community (SADC) followed suit, similarly pledging to eliminate malaria from southern Africa. The SADC Ministers of Health approved the SADC Malaria Strategic Framework and subsequent Malaria Elimination Framework which urged member states to identify potential areas for elimination and to develop national malaria elimination strategic plans.

The concept of the E8 brings together the four mainland countries of the six countries targeted for malaria elimination within the SADC Framework—Botswana, Namibia, South Africa, and Swaziland.<sup>2</sup> These four countries are considered the “frontline countries,” and are best positioned to begin the move towards malaria elimination in southern Africa. Their neighbors to the north with a relatively higher transmission of malaria—Angola, Mozambique, Zambia, and Zimbabwe—constitute the second-line countries of the E8. Encouraged by

the potential for transformation from a coordinated regional approach to malaria elimination in southern Africa, eight Ministers of Health proposed and adopted the concept of the Elimination 8 (E8) as a platform for deliberation and collaboration. In March 2009, the first of a series of high-level coordination and consultation meetings among E8 Ministers was held and was intended to lead to practical implementation steps by the National Malaria Control Programmes, regional institutions, and their technical partners. The E8 regional initiative was adopted by the SADC Ministers of Health in 2009, and reaffirmed in 2011 and 2012.

The E8 Strategic Plan takes into account the malaria situation in the eight eliminating countries, progress that has been made by the country partners in the fight against malaria, and decisions taken by the political principals at different fora. As all E8 countries are also SADC member states, all objectives and strategies put forth by the E8 Strategic Plan are in line with those stated in the SADC Malaria Strategic Framework (2007–2015) and the SADC Malaria Elimination Framework.

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<sup>2</sup> In 2007, SADC identified six countries as having the greatest potential to eliminate malaria by 2015—Botswana, Namibia, South Africa and Swaziland, as well as the island states of Zanzibar and Madagascar.

# Regional profile

Since 2000, there has been a marked decline in malaria in southern Africa. In the E8 countries, malaria cases have decreased by nearly 50% over the past five years, declining from 14 million cases in 2007 to 8 million cases in 2012.<sup>3</sup> Frontline countries are projected to be on track to achieve a greater than 75% decrease in malaria incidence by 2015, when compared to 2000.<sup>4</sup> Swaziland is aiming for national elimination by 2015, while South Africa and Botswana are aiming to eliminate by 2018 and Namibia by 2020; all four of these countries have achieved an incidence rate of <2.0 cases per 1,000 population. All four countries are actively reorienting their national programme towards elimination and developing the necessary systems to get to zero. Mozambique, Zambia, and Zimbabwe have set subnational elimination goals in the next few years, and Angola is considering the potential for subnational elimination in its southern provinces (data quality varies among some of the higher prevalence countries).

Table 1 and Figure 2 on the next page summarize key malaria trends within the eight countries of the E8.

<sup>3</sup> WHO Global Malaria Programme, World Malaria Report 2013, World Health Organization (2013).

<sup>4</sup> WHO, World Malaria Report 2013.

Figure 1: Elimination 8 Regional Map

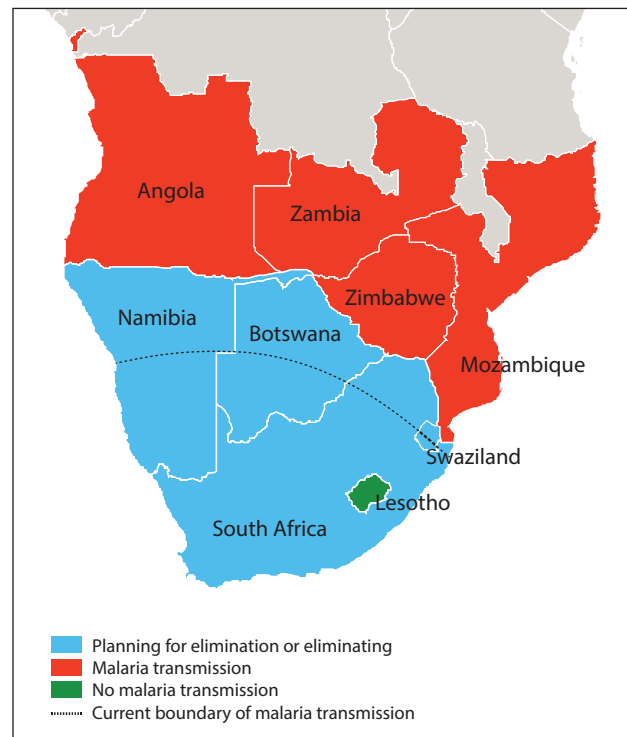
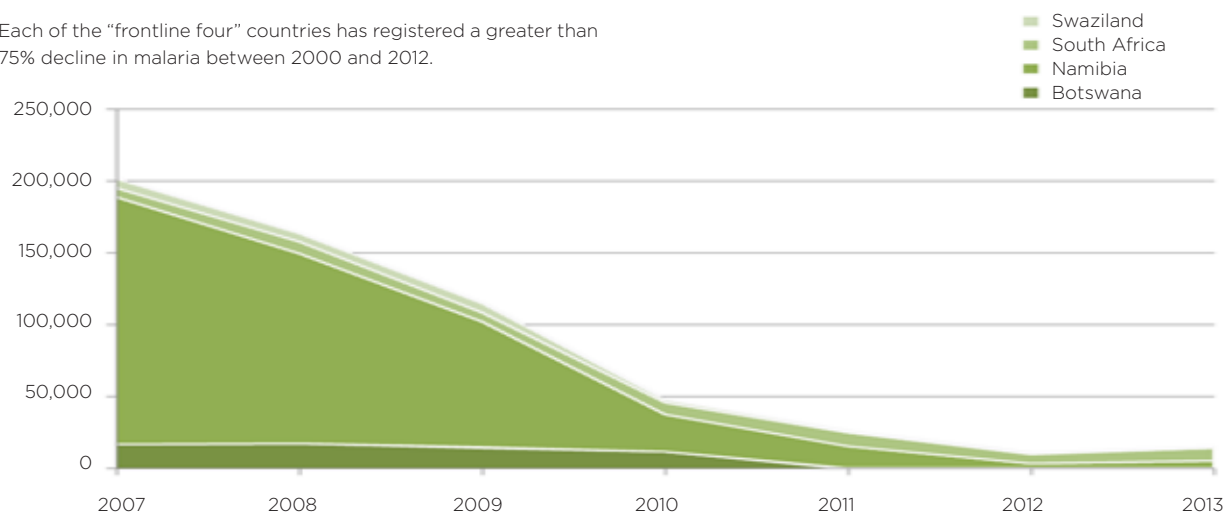


Table 1: Elimination 8 country statistics, 2013<sup>5</sup>

Country	Reported malaria cases	Reported malaria deaths	Malaria incidence rate	Slide positivity rate	% of suspected cases tested	Completeness of reporting	Reported local cases	% confirmed cases treated as per guidelines	IRS operational coverage	Financing: health as % of total expenditure
Frontline countries										
Botswana	456	7	0.23	-	-	81	235	100%	68	15.7%
Namibia	4,592	20	2	9	78%	74	4,396	90%	94	11.3%
South Africa	8,851	105	0.58	0.67	100%	95	1,896	100%	88	12.6%
Swaziland	478	6	1.67	-	100%	90	132	100%	91	9.4%
Second-line countries										
Angola	3,144,100	7,300	143	48	-	76				
Mozambique	3,924,832	2,941	161	40	-	88				
Zambia	5,405,713	4,204	371	69	60%	88				
Zimbabwe	387,092	383	2.9	-	99%	90				

Figure 2: Presumed and confirmed malaria cases in the four frontline countries<sup>6</sup>

Each of the “frontline four” countries has registered a greater than 75% decline in malaria between 2000 and 2012.



<sup>5</sup> SADC, E8 Malaria Elimination Scorecard, SADC (May 2014).

<sup>6</sup> WHO. World Malaria Report 2013.

# A regional approach to elimination





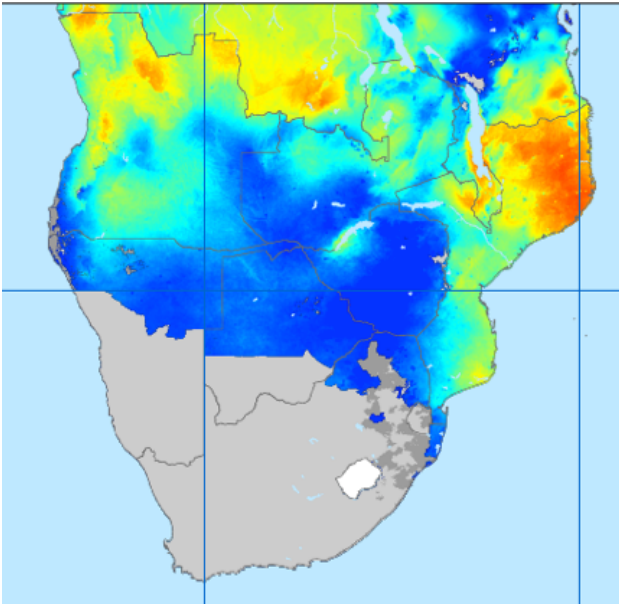
## Regional and cross-border collaboration

The boundary of malaria transmission cuts roughly halfway across Botswana, Namibia, South Africa, and Swaziland; these countries are aggressively pursuing national strategies towards malaria elimination, aiming for the interruption of transmission within their borders. However, the four countries cannot eliminate as long as high transmission remains within the region, and human migratory patterns facilitate parasite importation from more highly endemic countries. Therefore, successful malaria control by the neighbors of these four countries also supports the elimination strategy of the four eliminating countries, as it reduces the reservoir of potential infection that could cross the border and re-establish infection in areas aiming to interrupt transmission. As the four frontline countries achieve elimination, the interruption of transmission within their boundaries will move the current boundary of malaria transmission upwards, thus laying the foundation for the second-line countries—Angola, Mozambique, Zambia, and Zimbabwe—to also eliminate. Through this spatially progressive elimination strategy, the boundary of malaria transmission moves further upwards and additional countries are expected to join the original E8 until the region is free of malaria.

Given the above, a regionally coordinated approach is critical to achieving success in malaria elimination. The potential for any country in the region to successfully eliminate is inextricably linked to other transmission trends in the region, and particularly to trends in neighboring countries. As illustrated in Annex 2, 72%, 79%, and 48% of cases in Swaziland, South Africa, and Botswana, respectively, are imported, primarily from the countries' more endemic neighbors. For this reason, the region is embarking on a joint collaboration towards elimination, working together to address issues that undermine or reinforce its collective success.

Limiting the importation of cases across porous borders through proactive engagement and involvement of mobile and migrant populations is a central strategy for achieving both national and regional elimination targets. In order to do this, effective cross-border collaboration initiatives are required in order to implement data sharing and referral systems, and to enable free

**Figure 3: The Current Boundary of Malaria (Pf) Transmission in southern Africa.**



*Source: Malaria Atlas Map*

movement of resources for joint execution of certain interventions (e.g. indoor residual spraying (IRS), border screening, and treatment). A model of collaboration in malaria control is the Lubombo Spatial Development Initiative (LSDI) in which Mozambique, South Africa, and Swaziland leveraged each other's technical and operational expertise to extend malaria control across borders. However, beyond this example, the region has seen limited success in other cross-border initiatives. Strategic guidance and dedicated capacity is required to put in place or strengthen existing collaboration mechanisms among other key borders apart from the LSDI, including Angola-Namibia, Botswana-Zambia-, and Zimbabwe-Mozambique.

## Policy harmonization

In order to affect a regional approach to elimination, the region will require building on the harmonization efforts being spearheaded by SADC. These efforts will support national programmes and regional actors to design and execute strategies that complement and reinforce each other. Table 2 below summarizes issues to be considered within the E8 harmonization framework.

**Table 2: Policy harmonization framework for the E8**

Thematic area	Policy and strategy harmonization
<b>Case management</b>	<ul style="list-style-type: none"> <li>• Definitions and requirements on definitive diagnosis</li> <li>• Recommended diagnostics for low-endemic settings that are sensitive enough to identify low-parasitemia infections</li> <li>• Treatment in public sector, private sector, and community case management; pricing of diagnosis and treatment services</li> <li>• Ceiling prices for malaria commodities</li> <li>• Quality assurance/quality control (QA/QC) of drugs and diagnostic commodities</li> </ul>
<b>Vector control</b>	<ul style="list-style-type: none"> <li>• Roles of IRS, long-lasting insecticide treated nets (LLINs), and larviciding</li> <li>• IRS insecticide, resistance, waste disposal, and technology</li> <li>• Resistance monitoring and management</li> </ul>
<b>Surveillance, epidemic preparedness, and response</b>	<ul style="list-style-type: none"> <li>• Coordinated mapping of transmission foci and population movement</li> <li>• Disaggregation and standard definitions of local and imported cases</li> <li>• Standard elimination monitoring and evaluation indicators</li> <li>• Disease and commodity forecasting guidelines</li> <li>• Definition of epidemic thresholds</li> <li>• Regional emergency stock for epidemic preparedness and response</li> </ul>
<b>Pricing, taxes, and tariffs</b>	<ul style="list-style-type: none"> <li>• Removal/waiving of taxes on import/transportation of malaria commodities and equipment</li> <li>• Tax and other waivers for private sector and other partners</li> </ul>
<b>Migrants right to health</b>	<ul style="list-style-type: none"> <li>• Harmonized guidelines on migrant's and mobile population's access to malaria screening, treatment, and preventative services</li> </ul>

# Rationale and problem statement

Several factors and capacity constraints limit the ability of the region to achieve and sustain malaria elimination in the four frontline countries while reducing incidence in the second-line countries as per the regional approach outlined above. These challenges—elaborated upon in the section below—include population mobility, border protocols, surveillance, quality assurance, knowledge management, and financing.

## Population mobility

Population movement in southern Africa is complex, founded on various cultural and historical dynamics. The region is highly heterogeneous, and is made up of different categories of migrants, including migrant workers, family members, international students, asylum seekers, refugees, other displaced persons, as well as victims of human trafficking. High rates of mobility and migration across E8 countries lead to continued malaria transmission in the eliminating districts and countries aiming to interrupt transmission. Mobile populations, migrants, and their families, particularly the undocumented, often face complex obstacles in accessing essential health care and malaria-control services. This in turn results in undetected and untreated malaria and increases their vulnerability to malaria-related morbidity and mortality.

Figure 4 below illustrates the combined impact of malaria transmission (the first map) and human mobility (the second map) to provide an estimation of the flow of parasite movement between various locations across the E8 (the third map). Understanding the interplay between these two factors is the focus of new analytical

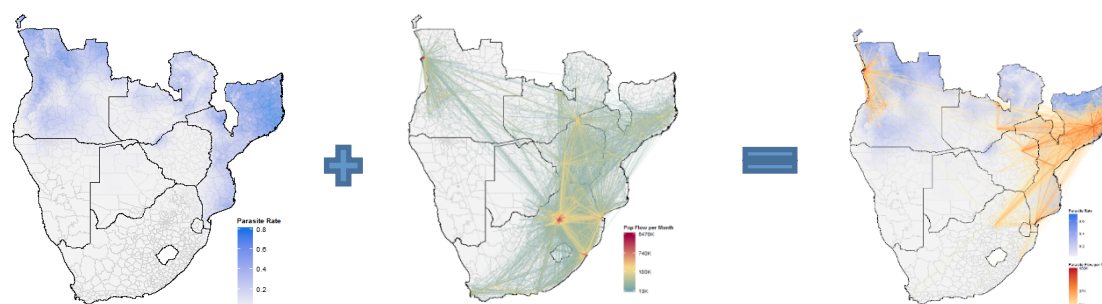
approaches, which will be further expanded to support E8 strategies for dealing with the parasite movement problem.

The lack of disaggregated surveillance data, poor cross border coordination, migrant insensitive health systems, and differing policy and legislative frameworks all contribute to increasing migrant vulnerability to malaria, and can impact their ability and willingness to access malaria control interventions. For instance, malaria surveillance often does not include mobile populations, given that these groups may not seek treatment in public health facilities for fear of deportation or reporting of their immigration status. In some cases, patients who do seek care report themselves as nationals in the host country, which further weakens surveillance and may waste time in attempting patient follow up. Coordination of surveillance to share real-time incidence patterns and outbreaks across borders is therefore a key priority, but is not yet in place among the E8.

## Border areas

For the E8 countries, malaria importation and transmission in border areas has been a significant barrier to accelerating the pace of elimination. Although malaria incidence may decrease in the E8 frontline countries, they remain highly vulnerable and receptive to malaria outbreaks triggered by imported cases from their neighbors. With transmission in second-line countries typically being highest in northern regions/provinces, far from the southern borders with the frontline E8 countries, priority for national intervention implementation is naturally given to those areas. Conversely,

**Figure 4: Mapping of parasite rate, mobility, and weighted parasite movement; Transmission in southern Africa**



Source: Clinton Health Access Initiative

the highest burden areas for frontline countries are adjacent to the borders which are often warrant relatively less priority by second-line countries. This creates a natural difference in spatial prioritization of malaria interventions between neighboring countries, which currently undermines a collaborative drive toward elimination in these border areas.

Past efforts at responding to this challenge have been focused around the creation of various sub-regional cross-border initiatives to facilitate the acceleration toward malaria elimination in the eight countries. Innovative sub-regional initiatives like the Trans-Kunene Malaria Initiative (TKMI), Trans-Zambezi Malaria Initiative (TZMI), LSDI, and MOZIZA (Mozambique, Zimbabwe, and South Africa) were created to address the challenges of coordinating malaria control across borders. These agreements legally bind participating countries to take certain collaborative actions toward fighting malaria in border districts. Due to lack of dedicated funding to ensure coordination of operations, these initiatives have had a limited impact on malaria transmission in targeted areas. Additionally, it was recognized by the E8 Ministers of Health that the eight member countries must work together as one to more adequately tackle the issue of cross-border malaria transmission.<sup>7</sup>

For malaria elimination to succeed regionally, it must be possible for every country to sustain elimination, which in turn involves understanding and responding appropriately to importation risk. While active case detection is the recommended intervention for identifying secondary infections in communities of confirmed malaria cases, the establishment of border health posts in areas that have high movement across borders and low service delivery would increase early diagnosis and treatment, as well as ensure case follow-up to reduce transmission in border areas and the neighboring districts.

## Surveillance

E8 countries currently operate independent surveillance systems, with their own unique indicators and very limited cross-border sharing. In addition, many of the countries maintain weak information systems and are still building up functional rapid response mechanisms. Harmonising surveillance protocols and capabilities is required to enable coherent and accessible regional reporting at a higher resolution, ideally encompassing malaria case data as well as vector control intervention data, entomological surveillance data, and details of case investigation activities, particularly related to case classification based on the probable source of infection. This availability of integrated information consisting of common indicators across all countries at the regional level would serve to inform malaria programmes sharing

borders, thereby improving the efficiency and effectiveness of activities and aiding coordinated decision making.

Regional surveillance, testing, and treatment of malaria in migrant and mobile populations is essential to reduce the levels of malaria transported across borders by seeking to trace and treat cases in border areas and where they occur, before patients are prompted to seek treatment elsewhere. In this respect, regional-level innovation and problem solving are required to tailor solutions to the specific context. A regional surveillance platform capable of identifying high-risk groups is necessary to provide a rapid pathway for sharing experiences and successful strategies to contain malaria in the affected areas. Increasing the proportion of cases that are timeliness detected and communicated to neighbouring control programmes across borders will enable rapid response and prevent onward transmission and the spread of epidemics within the region. As malaria decreases, transmission tends to become more focalized and heterogeneous. In order to eliminate areas of focal transmission, and to mitigate against the risk of exporting infection from these foci, it is imperative to generate and share information about the features of locations that exhibit transmission potential, including the populations living in those areas. Information from entomological and active case surveillance systems contributes to the profile of a location, along with other geographic, population, and meteorological information.

Entomological surveillance is lacking in the region and must be expanded to allow constant monitoring of mosquito vectors suitable for transmission of malaria. Regional capacity in monitoring insecticide resistance, presence and feeding behavior of mosquitoes, and granular mapping of vectors is required, and this can be achieved by building the capacity of a regional entomology center to be able to conduct tests and trainings within the region.

## Quality assurance/quality control

As more SADC countries embark on malaria elimination agendas, timely and accurate diagnosis of all malaria infections becomes a fundamental requirement, making the implementation of QA/QC programmes across the region a priority. However, malaria programmes within the SADC region have rarely conducted QA/QC assessments of malaria diagnostics and methods employed, limiting the ability to determine the accuracy of diagnosis results being obtained. Some countries working towards have partnered with laboratories outside the region for QA/QC. However, as more countries embark on malaria elimination agendas, there is a need to establish a regional laboratory for QA/QC to determine the accuracy of the malaria diagnostic results obtained and to build regional capacity. Detection of asymptomatic

<sup>7</sup> Concept Paper-Elimination 8," Concept Note, Malaria Elimination Ministerial Meeting, Windhoek, Namibia, 3 March, 2009.



infections requires more sensitive diagnostics that can go below 100 parasites/ $\mu$ l, and novel, sensitive diagnostics are therefore required.

Microscopy skills tend to decline with the decrease in the malaria burden. Guideline development must be followed with robust training across the region on malaria detection and reporting. External quality assurance (EQA) activities such as proficiency testing are required for regular assessment of malaria diagnosis. The region faces a significant gap in the coordination of EQA activities for malaria, and limited mentorship and training capacity exist that would provide corrective actions to deficiencies highlighted by EQA.

## Parasite screening

As the intensity of malaria transmission declines, more sensitive techniques to detect parasite carriers are required. Currently, the available sensitive techniques require expensive specialized equipment and staff, thus ruling them out as an option for most SADC countries. A parasite strain bank is required of countries seeking malaria elimination to genetically characterize locally circulating parasite strains; this would then allow differentiation of cases related to local transmission from those related to imported malaria or to imported cases. The absence of a regional slide bank is also a challenge to microscopy proficiency testing and training. A supra-national laboratory is required to serve as a resource for offering specialized tests, such as polymerase chain reaction (PCR).

## Information and knowledge management

Over the last few years, new technical and operational evidence on malaria elimination has become available. However, there remains generally limited information and knowledge to guide eliminating countries, as most malaria guidance that is available relates to control, rather than elimination. As new guidance becomes available on elimination, there is a need for systems and platforms of information and knowledge management, making practical guidance available to eliminating countries. Given the need for a coordinated and harmonized approach to regional elimination, a common knowledge management platform becomes even more critical. New resources that have been developed and that still need to be translated and actively integrated into a regional knowledge repository include guidance on effective design of cross-border collaboration, partner and landscape assessments specific to elimination, mapping of repositories of technical expertise, and mentoring support within the region, as well as individual country strategies and progress towards elimination. In addition, global guidance on sustainable financing, transmission risk mapping, and new treatment guidelines for elimination have been developed and need to be made available to support the work of countries.

## Financing

Innovative, donor-independent financing is critical to the long-term sustainability of the E8's malaria programming, helping to ensure that once elimination is achieved, it is also sustained. As the region moves toward malaria elimination, the potential for malaria re-introduction remains, making the region vulnerable to malaria resurgence. A systematic literature review identified 75 malaria resurgence events in 61 countries since the 1930s; the predominant cause of these resurgences was a weakening of malaria control efforts, with the primary reason being resource constraints.<sup>8</sup> In the E8 region, Zambia, Zimbabwe, Swaziland, and South Africa have documented independent resurgence events,<sup>9</sup> underscoring the importance of sustained malaria programming supported by predictable, uninterrupted financing.

Long-term, donor-independent financing for the E8 could be realized through myriad innovative approaches, including greater corporate sector engagement, the development of an endowment fund, and hypothecated taxes. The development of such financing mechanisms will require close coordination across the E8 countries and transparent management.

Experience in developing domestic, malaria-dedicated financing mechanisms in Liberia, Zanzibar, Malawi, and Zambia indicates that the pursuit of these mechanisms can be time intensive. While working to develop long-term financial sustainability through such mechanisms, it will be necessary to find provisional funding from external development partners. This funding is needed to help the E8 achieve regionally what each country may be unable to achieve individually—a coordinated, collaborative approach to regional elimination by 2030.

The risk of high malaria transmission impacts both the country in question and its neighbors; similarly, the benefits of elimination may be distributed across a regional grouping. When one country makes the investment to interrupt malaria transmission within its borders, it paves the way for its neighbors to do the same. Malaria financing models among the E8 countries and the region as a whole should therefore take this feature into consideration, balancing both the domestic contributions of individual governments with the regional responsibilities of regional blocs and country groupings (such as through cross-border collaborations or regional investments by regional economic groupings such as SADC), which stand to benefit from the positive externalities from an individual country investment.

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8 Justin M. Cohen, et al, "Malaria Resurgence: A Systematic Review and Assessment of its Causes," *Malaria Journal* (11) 2012.

9 Cohen, "Malaria Resurgence."

# Elimination 8 vision and goal





## Vision

To have a malaria-free southern Africa.

## Goal

To enable and accelerate zero local transmission in the four frontline countries by 2020 through the provision of a platform for collaboration and joint strategic programming.<sup>10</sup>

## Guiding principles

In accordance with the Guiding Principles of the SADC Malaria Strategic Framework 2007–2015, this Strategic Plan:

- Is based on internationally and regionally agreed instruments and global consensus declarations on human rights, including the right of all persons to the highest attainable standard of health.
- Shall take into consideration other initiatives and plans such as the SADC Protocol on Health Implementation Plan, the SADC Malaria Strategic Framework, and the SADC Malaria Elimination Framework.
- Recognizes the need for inter-sectoral collaboration between partners at international and regional levels.
- Is not replacing, but augmenting, health and malaria control plans of member states.
- Shall be owned by member states who will play an active role mobilizing resources for the activities.
- Shall take into consideration the effect of malaria on gender.

## Objectives

The E8 Strategic Plan consists of five primary objectives:

- 1. To strengthen regional coordination in order to achieve elimination in each of the E8 member countries;**
- 2. To elevate and maintain the regional elimination agenda at the highest political levels within the E8 countries;**
- 3. To promote knowledge management, quality control, and policy harmonization to accelerate progress towards elimination;**
- 4. To facilitate the reduction of cross-border malaria transmission; and**
- 5. To secure resources to support the regional elim-**

**ination plan, and to ensure long term sustainable financing for the region's elimination ambitions**

The strategies and plans which will be implemented towards the attainment of each of the objectives are summarized below.

### **1. To strengthen regional coordination in order to achieve elimination in each of the E8 member countries**

As the eight countries individually plan and make progress towards their individual malaria elimination ambitions, there remains several variables—many of them exogenous to the eliminating country—that undermine the ability of each country to successfully interrupt transmission. These variables include: human migratory patterns, porous borders that allow potential parasite carriers and the reintroduction of malaria, risk of insecticide and drug resistance which can spread within the region, global availability and pricing of commodities, and the use of sub-standard implementation of control interventions—all of which have negative implications for bordering countries. The E8 will therefore provide a platform for collaboration on such issues to negotiate and jointly develop plans for addressing challenges of a regional nature, thereby facilitating the success of the individual elimination strategies. While existing regional structures such as SADC and SARN have to date played a role in coordinating malaria elimination issues on behalf of the region, there is a need for a more aggressive drive towards malaria elimination, in turn requiring a dedicated system of coordination. The E8 will therefore serve as a platform to enable focused activity on the ambitious regional goal, coordinating the activities of a wide landscape of partners.

As elimination will require innovative and multidisciplinary approaches, a key purpose of the E8 is the convening of these various disciplines in support of the region. Public-private partnerships in particular will play a key role in malaria elimination; various private sector entities will be leveraged to support short-term financing, financial sustainability planning, use of information and communication technology applications, laboratory services, and commodity availability among others.

The E8 Technical Committee—comprised of national malaria control programmes (NMCPs) and technical partner institutions—will serve as the technical arm of the E8's coordination function. The Technical Committee will be supported by an E8 Secretariat, which will have a full-time team dedicated to following through on plans and resolutions of the Technical Committee, and overseeing timely and quality execution of the E8's mandate. Working in concert, the Technical Committee and the Secretariat will work closely with the NMCPs to ensure that the planning and execution of national malaria strategies integrate the regional perspectives

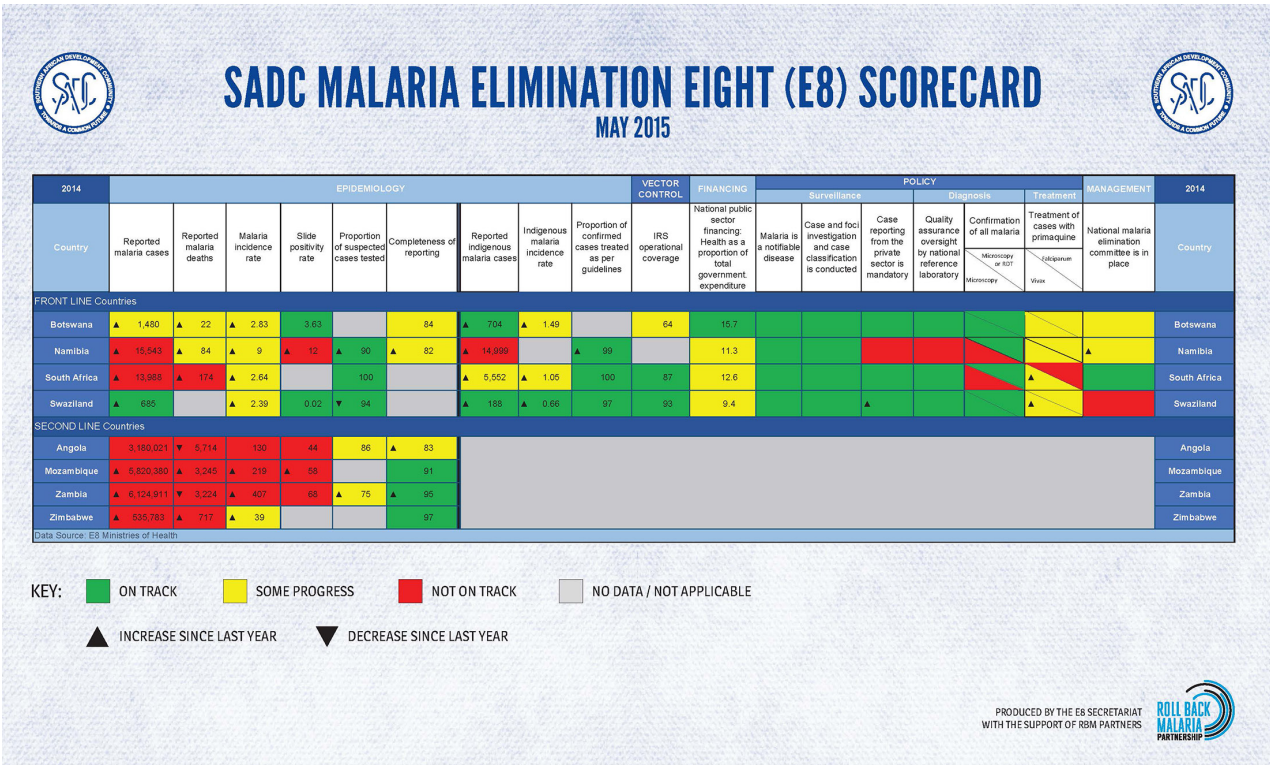
<sup>10</sup>The interim goal of the current Strategic Plan is to achieve elimination in the frontline countries by 2020; however, the long term goal is to achieve elimination in all 8 countries, although this will be beyond the duration of this Strategic Plan.

that are necessary for mutual success across all eight countries. In order to develop an effective working partnership between the regional level and the country level, members of the Secretariat will be assigned to each of the eight countries, ensuring two-way transfer of knowledge and strategy between countries and the region. The E8 regional coordination approach will facilitate the participation of member countries in each other's planning and review exercises, integrating plans and approaches from different countries to foster a genuinely regional approach towards elimination.

function will manage this process, convening the relevant technical expertise and country officers to support the follow-through towards harmonization.

Through its coordination structures, the E8 will design a robust monitoring and evaluation framework to track the progress of the region towards elimination. In partnership with the E8 Scorecard, the E8 will support the use of standardized malaria elimination monitoring indicators at the country level, and compile both national and regional indicators on an annual basis.

Figure 5: E8 Scorecard



The development and maintenance of minimum quality standards within the elimination countries (above the more general SADC standards) is a key step towards harmonization of policy and implementation in the region. The harmonization effort will address areas where different or contradicting policies across the region undermine countries' efforts. These issues include insecticide selection and resistance management, processes for dealing with migrant populations, and referral protocols among border health posts. The E8 coordination

**2. To elevate and maintain the regional elimination agenda at the highest political levels within the E8 countries**

The formation of the E8 by the eight Ministers of Health in 2009 signaled a high level of support for elimination at the ministerial level. Through the E8 platform, the Ministers of Health and their partners will provide additional leadership for malaria elimination, and elevate both the national and regional elimination agendas among their respective policy-making bodies (e.g. Parliament, Cabinet, etc.). In particular, the key challenge that countries and the region face is related to resources; there is therefore a key role to be played in securing commitment from Ministers of Finance.



Figure 6: E8 Ministers of Health reviewing their country's progress in the E8 Scorecard



From left, Hon. Dr. Richard Kamwi (Namibia), Hon. Dr. Aaron Motsoaledi (South Africa), Hon. Rev. Dr. John Seakgoseng (Botswana), and Hon. Dr. Parirenyatwa (Zimbabwe)

In partnership with ALMA and SARN, the E8 will continue to support the annual publication of the E8 Scorecard, which keeps countries accountable to their commitments towards a region free of malaria. Malaria elimination events and forums will be held alongside high-profile events such as the SADC Ministers of Health meetings and the African Union summits. Senior political officials will also play a key role in the E8's advocacy strategy towards potential financial partners, including development partners and the private sector. Regional champions for malaria elimination will be identified and engaged to support a regional advocacy campaign, targeting the citizens, civil society, and policymakers of the eliminating countries, and promoting a shared understanding of the regional goal.

### 3. To promote knowledge management, quality control, and policy harmonization to accelerate progress towards elimination

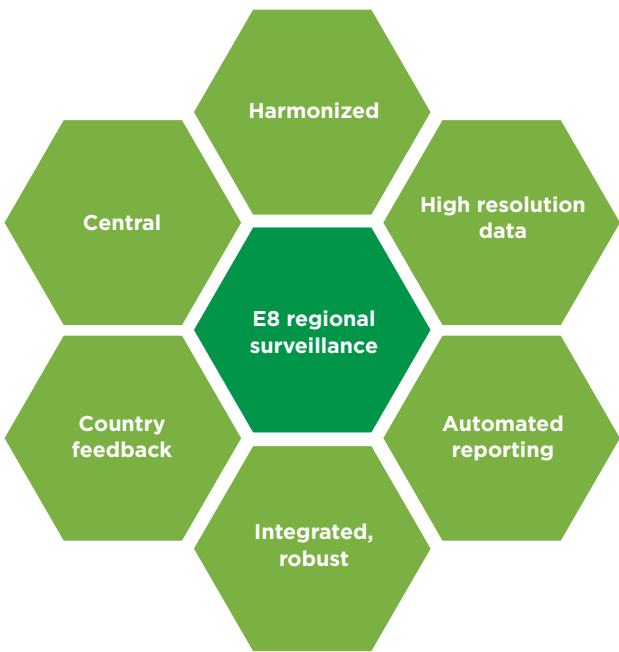
Heavy and frequent population movement through several crossing points (both formal and informal) for trade, migrant work, and education—combined with the fact that many borders in the region are artificial boundaries that cut across singular communities—fuels the importation of malaria across countries. Containing transmission across border regions and preventing the importation of parasites from one country to another are central to the ability to achieve elimination.

The E8 will distill the key lessons learned and develop best practices from the execution of successful cross-border initiatives around the world. The experience from LSDI,

for example, will be leveraged to guide efforts between neighboring countries currently aiming to establish similar bi-lateral or tri-lateral collaborations.

Regional maps (of the eight countries) will be developed using shared data from a collective data-sharing platform. The key features of the regional data-sharing platform are detailed in Figure 7 below.

**Figure 7: Characteristics of the E8 regional data-sharing platform**



These will show maps of malaria transmission risk across the region as well as human mobility patterns and parasite transmission pathways, highlighting the “sources and sinks” of malaria across the region—i.e. areas that are exporting malaria to other countries, and those that are receiving imported cases. These maps—which will be continually updated—will be reviewed annually to guide the E8 strategy and areas of focus for the containment of transmission.

Surveillance, screening, and treatment strategies will be the main methods employed in various border areas across the E8 countries. Joint protocols for case detection, investigation, and reporting will be developed and used in bordering districts; these will enable health officials from one country to liaise directly with their colleagues across the borders to investigate and follow up jointly on mobile communities within the border districts. Elimination response teams (based in border districts) will be appointed and given access to work easily across borders. Proactive case detection and treatment of high-risk populations that move back and

forth across the border will also be put in place, similarly operating in collaboration with health officials on both sides of the border. The elimination response teams will share data and information on identified transmission foci, thus supporting the containment of transmission before it results in importation to neighboring countries. Harmonized tools will also be developed to support parasite screening at border posts.

While the E8 strategy will focus on strengthening surveillance in border districts, it will also aim to support strengthening of national surveillance.

**4. To facilitate the reduction of cross-border malaria transmission**

The E8 will continue to facilitate the availability of additional technical and operational guidance to guide countries and the region. Global experience and expertise, operational research, and academic findings (translated to programme strategy) will be shared to continuously update elimination guidance. The E8 will leverage the work of its technical partners, including the WHO, GHG-UCSF, CHAI, and MACEPA.

Centers of excellence will be identified to concentrate expertise on issues such as diagnosis, entomology, and vector control, as well as surveillance. These centers of excellence (which will be attached to existing institutions in the region) will be further developed to equip them to serve as expert mentors for countries. As part of this strategy, a regional diagnosis EQA programme will be used to support the eight countries, and to maintain proficiency and standards in diagnosis, which is a key elimination strategy.

Minimum standards on malaria exist within the SADC region; building on these, minimum standards and a harmonization framework for elimination will be developed. This will include harmonization of policies related to commodity and insecticide use, insecticide resistance and management planning, and case classification, among others. Guidance will also be developed on how to plan and execute synchronized implementation plans for IRS or LLINs in border regions. Quantification and forecasting tools will also be established to facilitate the development of regional forecasts, supporting timely procurement.

The E8 will serve as a platform for actively managing and disseminating information and knowledge among countries; this will be done through the convening of an annual elimination symposium. E8 partners will also begin to explore and document guidance for countries on preventing the reintroduction of malaria, which will be a key concern for the first set of countries to eliminate within the next five years.

## **5. To secure resources to support the regional elimination plan, and to ensure long term sustainable financing for the region's elimination ambitions**

A key challenge which is central to the success of the region's elimination agenda—and which the region must pre-emptively plan for—is the sustainability of financing. As with the elimination of any disease, an enhanced amount of funding will be required to support a reorientation of national malaria programmes; reorientation from control to elimination is relatively more labor-intensive, and it entails sophisticated, comprehensive case detection and investigation, which are more expensive interventions. In addition, because efforts to control malaria do not necessarily alter the intrinsic potential for transmission, there is a need for stable and sustained financing flows to ensure elimination status is maintained. One of the key challenges facing the E8 is therefore the attainment of resources to achieve elimination in the medium- to short-term, and to sustain the gains in the long-term. The multitude of resurgence events after the Global Malaria Eradication Programme (GMEP) demonstrated the catastrophic results of reduced funding for malaria. The E8 will take lessons from these experiences, supporting countries to put in place mechanisms for long-term financial sustainability.

In addition to efforts to support financial sustainability planning at the country level, the E8 will also explore combined pools of funding to complement country financing. While individual countries may make their own investments in malaria elimination, there are activities of a regional nature (cross-border collaboration, harmonization efforts, border screening and treatment, health services and referral systems for migrant and mobile populations, etc.) that require resources, for which the region has joint responsibility. The E8 will design a

resource mobilization strategy, targeting both development organizations and the private sector. The focus of the resource mobilization strategy will be to complement country resources and to finance activities of a regional nature, and not to fill country resource gaps. (Given the scarcity of resources, filling in country gaps, especially for resource-intensive activities like IRS and LLINs, will yield minimum impact for the region as a whole and will not optimize value for region.) Resources mobilized through the E8 will be prioritized towards individual country gaps only in instances where the investment is directly linked to reduced transmission risk for the region, or where the investment otherwise supports the common goals of the region.

The E8 will support countries to secure resources from both external and domestic sources through the use of tools to develop the investment case for malaria elimination. These tools will be used as part of the resource mobilization strategy, supporting countries to secure resources for elimination, particularly as it becomes difficult to justify increased domestic spending on malaria where there is significant decline in incidence. The E8 will identify partners with relevant experience in public and health financing to support countries in securing increased domestic allocations from Treasuries, working closely with senior policymakers, and with Ministers of Health and Finance.

In preparation for the long term, the E8 will work closely with its private sector and technical partners to pursue innovative solutions for long term financing. Potential examples include endowment funds and malaria bonds, which attract capital from private investors who are interested in supporting social impact (such as the elimination from malaria) in addition to financial gain.

# Elimination 8 governance, structure, and management

In March 2009, at the E8 inaugural meeting in Windhoek, the Ministers of Health of the eight countries discussed the mechanisms and functions of collaboration necessary for malaria elimination. The E8 has since been led through the Chairship of the Minister of Health and Social Services for Namibia. Upon the creation of the E8, it was mandated that the Chairship would rotate among participating countries every three years.

## Organizational structure

The E8 organizational structure (see Annex 4) consists of the Ministers of Health of the eight participating countries who provide political leadership and oversight of all E8 operations. The Ministers receive technical inputs and recommendations from the E8 Technical Committee, which consists of the eight NMCP programme managers and representatives from regional and global partner institutions (see Annex 3). The Technical Committee is led by the E8 Chair (Programme Manager of the chairing country) and Vice Chair (from a regional partner institution) and supported by the E8 Secretariat. The E8 Secretariat is responsible for the implementation of all E8 activities. A subset of the Technical Committee consists of various working groups that have specific focus areas, such as vector control and surveillance. These working groups are comprised of key technical experts from the national malaria programmes and partner institutions.

The E8 Secretariat Director serves as the lead and focal point of the E8 Secretariat, which is envisioned to include additional full-time staff members when funding permits. The E8 Secretariat Director is responsible for coordinating E8 activities, and monitoring progress of the E8 Action Plan. As the lead of the E8 Secretariat, the Secretariat E8 Director is expected to provide strong leadership, strategy development, consultations, resource-mobilization, project management, and project execution to support the implementation of all E8 activities.

SARN, which consists of three fulltime staff members, also provides support to the E8 in coordinating and convening meetings, implementing key activities, providing resources/funding, and participating in strategy development.

## Partnerships

Key regional and global partners of the E8 Technical Committee include: the African Leaders Malaria Alliance (ALMA), the Clinton Health Access Initiative (CHAI), the Global Health Group based at the University of California, San Francisco (GHG-UCSF), the International Organization for Migration (IOM), the Malaria Control and Elimination Partnership in Africa (MACEPA), the SADC Military Health Services (MHS), the Southern African Regional Network (SARN)—the Roll Back Malaria (RBM) Partnership in Southern Africa, the World Health Organization's Inter-country Support Team (WHO-IST), and various members of the private sector.

## Policies and procedures

Key SADC frameworks form the foundation of the E8 Strategic Plan. These frameworks include the SADC Protocol on Health, SADC Malaria Strategic Framework 2007–2015, the SADC Malaria Elimination Framework, and the SADC Malaria Advocacy and Communication Framework.

Upon its conception, the E8 regional initiative was endorsed by all eight Ministers of Health. E8 action points require discussion within the Technical Committee, which then provides recommendations for approval by the E8 Ministers of Health. These deliberations take place during the E8 Technical Committee Meetings and the annual Ministerial Meetings. All recommendations generated by the E8 working groups are subject to further deliberation and a vote by the Technical Committee.

Additional detail on procedural and governance matters is outlined in the E8 Agreement, which is a legally binding document of the participating countries, as represented by their Ministers of Health.



## **Funding and financial resource management**

Startup funding to launch and operationalize the E8 Secretariat has been provided by GHG-UCSF. New funding opportunities may become available through global organizations such as the Global Fund to Fight AIDS,

Tuberculosis and Malaria, other development partners, as well as the private sector. Once fully operationalized, the E8 Secretariat will also be responsible for overseeing and mobilizing resources on behalf of the E8. As new funding opportunities become available, the E8 will expand its financial resource management capacity, developing transparent accounting and audit mechanisms.

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