Reaching beyond borders to achieve a malaria-free southern Africa

Eight countries in southern Africa are pushing the boundaries of what many thought was not possible: achieving and sustaining zero malaria. But the journey toward a malaria-free region by 2030 has challenges.

Malaria does not recognize boundaries or borders. A country will never achieve and sustain malaria elimination as long as transmission continues in neighboring countries. Because malaria—carried by people and mosquitoes—can cross borders, eliminating the disease cannot be achieved and sustained by countries alone. It must be done together, as a region.

Paving the way to elimination

Elimination is an ambitious but attainable goal for southern Africa. Significant progress has already been made in the region. While progress in the last 15 years has been dramatic due to aggressive scale-up of treated bed-nets, indoor residual spraying, and more effective drug treatments, the eight southern-most countries have now reached the end-game. To overcome a more sophisticated challenge of elimination, countries require advanced tools, strategies to limit parasite movement across borders, as well as more refined disease intelligence to reach the finish line of achieving and sustaining zero malaria.

The Elimination 8 Regional Initiative

Recognizing that the progress or failure of one country’s efforts to eliminate malaria is connected to the success of other countries in the region, the Elimination 8 (E8) was established by SADC to coordinate a collaborative effort, led by the Ministers of Health in eight countries, to jointly plan and execute a regional malaria elimination strategy.

The E8 is an unprecedented approach that aims to end transmission in the four low-transmission “frontline countries”—Botswana, Namibia, South Africa, and Swaziland—by 2020 and to pave the way for elimination in the four middle- to high-transmission “second line countries”—Angola, Mozambique, Zambia, and Zimbabwe—by 2030. The E8 is a pioneering collaboration that provides a blueprint for other countries and regions seeking to eliminate malaria.

Within the E8, member countries collaborate to address challenges that go beyond the scope or mandate of any one country, such as those associated with mobile and migrant populations, and gaps in surveillance data, resources, and infrastructure. The E8 is led by its member countries’ Ministers of Health and is supported by a Technical Committee, Secretariat, Secretariat Board, and the E8 Ambassador. The E8 Secretariat is headquartered in Windhoek, Namibia and has country focal points seconded to each of the E8 member countries. The E8 is currently funded by the Global Fund to Fight AIDS, Tuberculosis, and Malaria, the Bill & Melinda Gates Foundation, and the Malaria Elimination Initiative at the University of California, San Francisco.

The value of the E8 regional approach

Knowledge sharing and collaboration: Disease intelligence is central to the region’s efforts to track and target hot spots—geographic areas at high risk of malaria transmission. The E8 has provided countries with a regional forum to share knowledge and information across countries. While the scope of national health information systems is limited by political boundaries, malaria transmission extends beyond these boundaries. As the first of its kind, the regional database informs country action and preempts potential outbreaks.

Accountability: Each country’s performance is evaluated and recorded on the SADC E8 Elimination Scorecard, which is reviewed on an annual basis by E8 Ministers of Health. E8 countries define the required standards of performance by all countries, and the Scorecard serves as an accountability mechanism that monitors and compares country-level progress against the defined indicators that are critical for regional progress.

Collective strategy and action: The E8 Strategic Plan is a consensus-driven strategy that outlines a series of objectives and activities designed to coordinate member countries and technical partners in the joint pursuit of effective elimination strategies. The focus of the Strategic Plan is to complement national-level efforts and investments, thus accelerating progress towards zero transmission. Because the E8 provides an effective platform, solutions to challenges such as cross-border movement, commodity supply, and security can be solved collectively.
Efficiency: Rather than investing individually, countries are able to pool technical expertise and infrastructure such as laboratories, testing devices, and financial resources. These regional investments, through the E8, can have significant returns and will provide access to essential resources that otherwise may be out of reach to individual countries.

Fostering regional collaboration to reach the last mile

Successful malaria elimination by the E8 countries is highly dependent upon strong cross-border collaboration to mount a coordinated response to limit malaria importation, harmonize regional strategies, and conduct robust regional surveillance and analysis. The E8 is dedicated to:

- Providing a functional regional coordination platform
- Galvanizing strong political support for malaria elimination
- Improving regional disease intelligence, analysis, dissemination, and mapping
- Supporting the containment of cross-border transmission and importation of parasites
- Enhancing sustainable financing

Impact of the E8

Strengthened regional surveillance and outbreak response. The E8 has boosted the region’s capacity to collectively understand where transmission is occurring and how to effectively contain it by establishing:

- A regional malaria surveillance database that syncs malaria data from E8 member countries and provides them, for the first time, with regional-level intelligence.
- The E8 Situation Room that provides tailored support to national programs in analyzing data, troubleshooting bottlenecks, and facilitating the incorporation of climate forecasting data. The E8 Situation Room now serves as a hub for regional monitoring and support for epidemic preparedness and response; as well as the deployment of surge capacity for surveillance in the border areas.

Improved national diagnostic capacity. The E8 supports E8 countries by pooling expensive – yet critical – laboratory infrastructure and technical expertise in quality assurance and quality control. This regional diagnosis program improves national capacity to identify and confirm malaria infections—a key step to interrupting transmission.

Expanded access to malaria services to more than 300,000 people in underserved areas. The E8 has established 46 border posts that provide critical health services to mobile and migrant populations, as well as underserved residents of remote border communities. They are also reducing the reservoir of infectious parasites that would otherwise be carried over the border into lower transmission areas.

Mobilized resources, political will, and accountability. The E8 has mobilized over $22 million for regional elimination, including contributions from E8 member countries and the SADC Secretariat.

Number of Cases in the E8 Border Districts

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<tr>
<th>Number of standard deviation from the monthly mean (2013-2015)</th>
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<tr>
<td>&lt; -5</td>
<td>2 to 5</td>
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<tr>
<td>-5 to -2</td>
<td>&gt; 5</td>
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<td>-2 to 0</td>
<td>0 to 2</td>
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Source: National Malaria Control Programs of the Elimination 8

Forecast Rainfall in the E8 Region

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<th>December 2017 - February 2018</th>
<th>January 2018 - March 2018</th>
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<tr>
<td>IRI Seasonal Precipitation Forecast</td>
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Source: International Research Institute for Climate and Society, Columbia University

Expanding access to high quality malaria testing and diagnostics is a top priority for the region.