

Integration of Malaria Elimination into Primary Health Care and Universal Health Coverage: Building Resilient Health Systems

Limpopo Province Malaria Prevention Programme

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Introduction

- Malaria is a preventable and treatable disease that continues to pose a major public health threat, particularly in areas of high transmission, such as the Southern African Development Community (SADC) region.
- Elimination is achievable, but only through sustained collaboration, strong partnerships, adequate funding, and effective leadership.
- The World Health Organization (WHO) African Region bears the largest malaria burden globally.
 - In 2022, the region accounted for 94% of malaria cases (233 million) and 95% of malaria deaths (580,000).
 - 78% of deaths occurred among children under five years.
- While significant progress has been made, malaria elimination remains a major challenge.
- Progress has stalled in several countries and worsened by COVID-19 disruptions and humanitarian crises, particularly in sub-Saharan Africa.



Global and SADC context

- **Malaria is endemic in 14 of the 16 SADC countries**, with over **75% of the population** living in malaria-risk areas.
- **Transmission varies** widely across and within countries, with **rural and impoverished communities** most affected.
- **Four SADC countries** contribute nearly a **quarter of the global malaria burden**:
 - ✓ Democratic Republic of the Congo (12.3%), Mozambique (4.2%), Angola (3.4%) and United Republic of Tanzania (3.2%)
- The region's **interconnected borders** and **high population mobility** complicate control efforts, as **migrants and cross-border traders** can reintroduce malaria into low-transmission areas.
- **Botswana, Eswatini, and South Africa** have made **tremendous progress** and are projected by **WHO** to achieve **elimination by 2030** through **effective cross-border partnerships** and **integrated strategies**.
- **Mauritius** has successfully **eliminated malaria** and continues to prevent reintroduction.
- In **2018**, SADC Heads of State signed the **Windhoek Declaration**, committing to a **malaria-free region by 2030**.

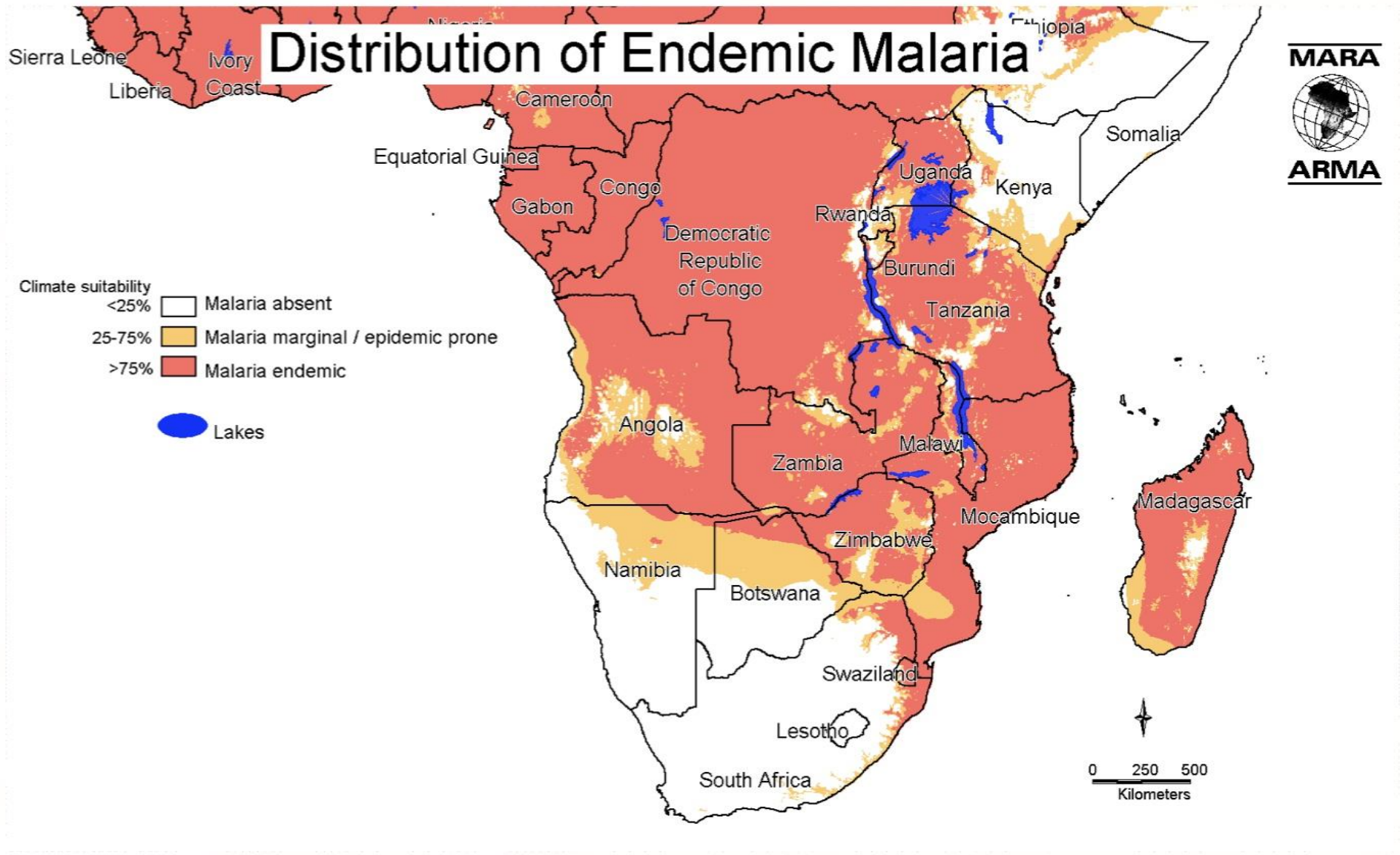
Elimination cannot be achieved by any country alone; regional solidarity is essential.

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Figure 1: Malaria transmission in SADC Member States



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Limpopo Malaria situation

- **Malaria remains endemic** in parts of **Limpopo Province**, particularly in the **Vhembe and Mopani districts**, with limited transmission in **Waterberg, Capricorn & Sekhukhune(WCS)**.
- Transmission occurs mainly during the **rainy season (October to May)**, when mosquito breeding increases.
- The province shares **borders with Botswana, Mozambique, and Zimbabwe**, which pose a constant **risk of imported malaria cases**.
- **Plasmodium falciparum** remains the **predominant parasite species**, accounting for **>95%** of infections.
- **Case management, indoor residual spraying (IRS), and surveillance** are the cornerstone interventions.

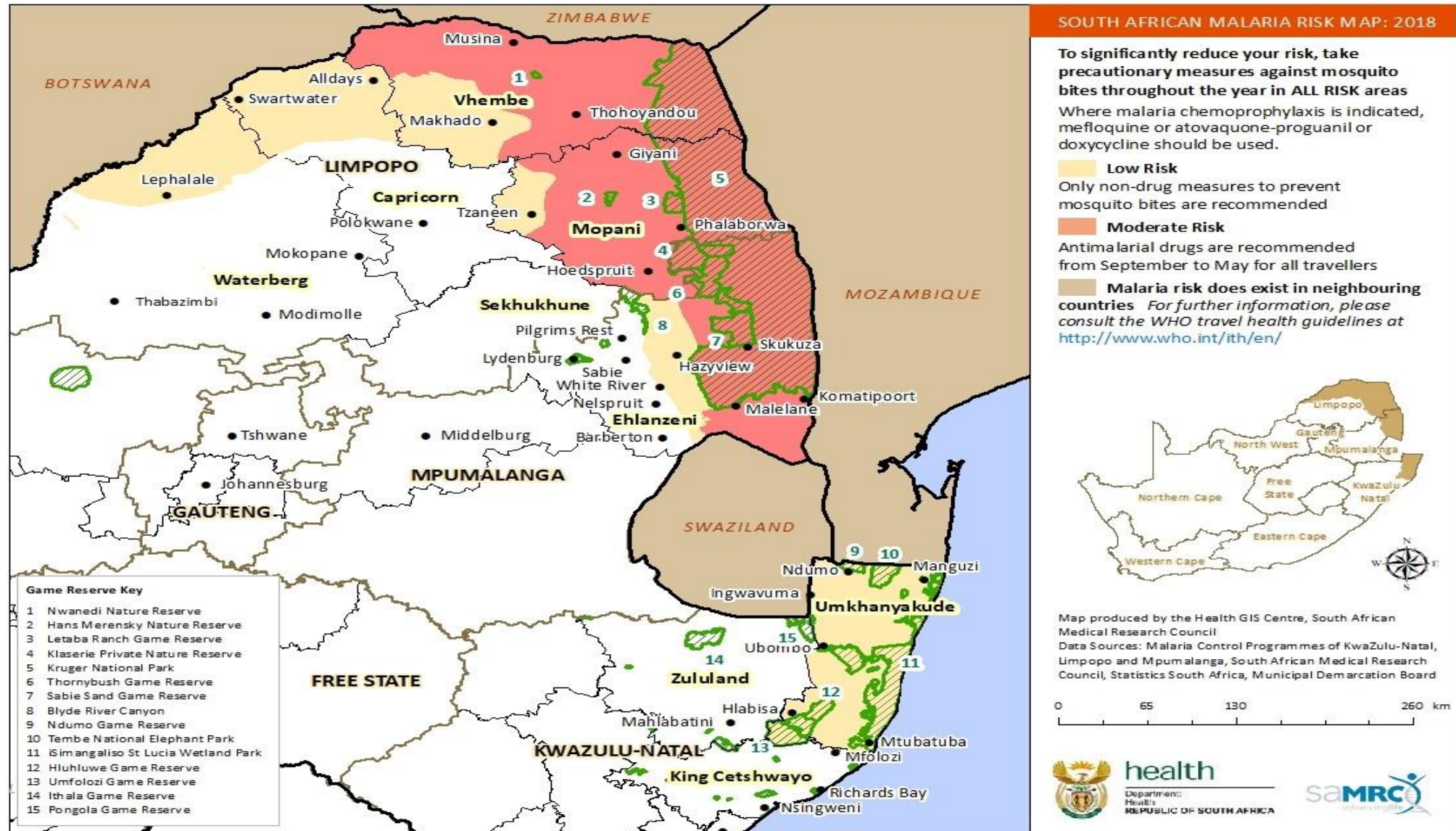
Trends (2022–2024):

- **Significant decline** in local transmission due to intensified vector control and early case detection.
- **Imported cases** remain a contributor to our malaria burden.
- **Zero malaria-related maternal deaths** reported in 2024.
- **Cross-border collaboration, community education, and PHC integration** continue to strengthen the province's malaria prevention and elimination efforts.



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Malaria risk areas – Limpopo (South Africa)

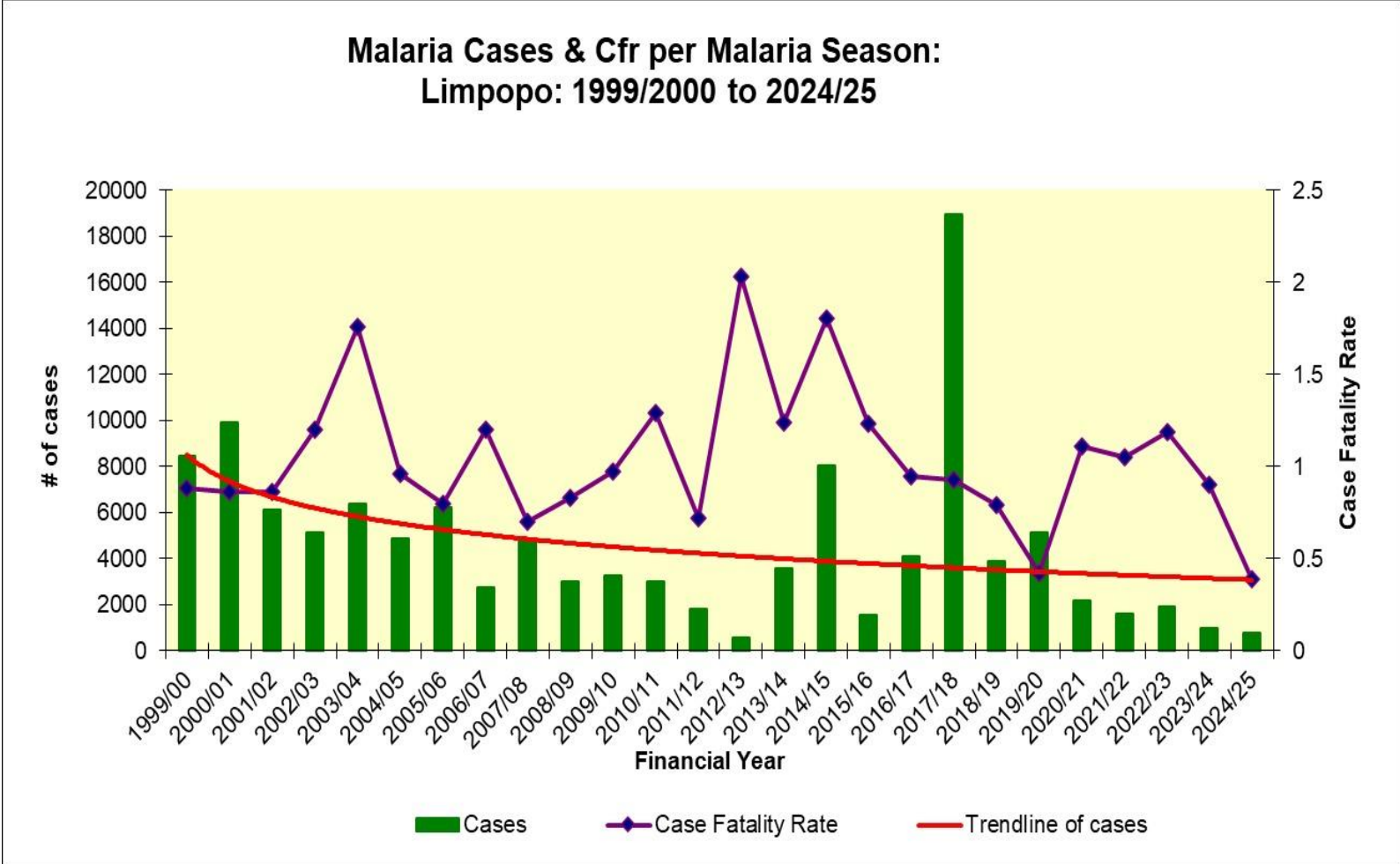


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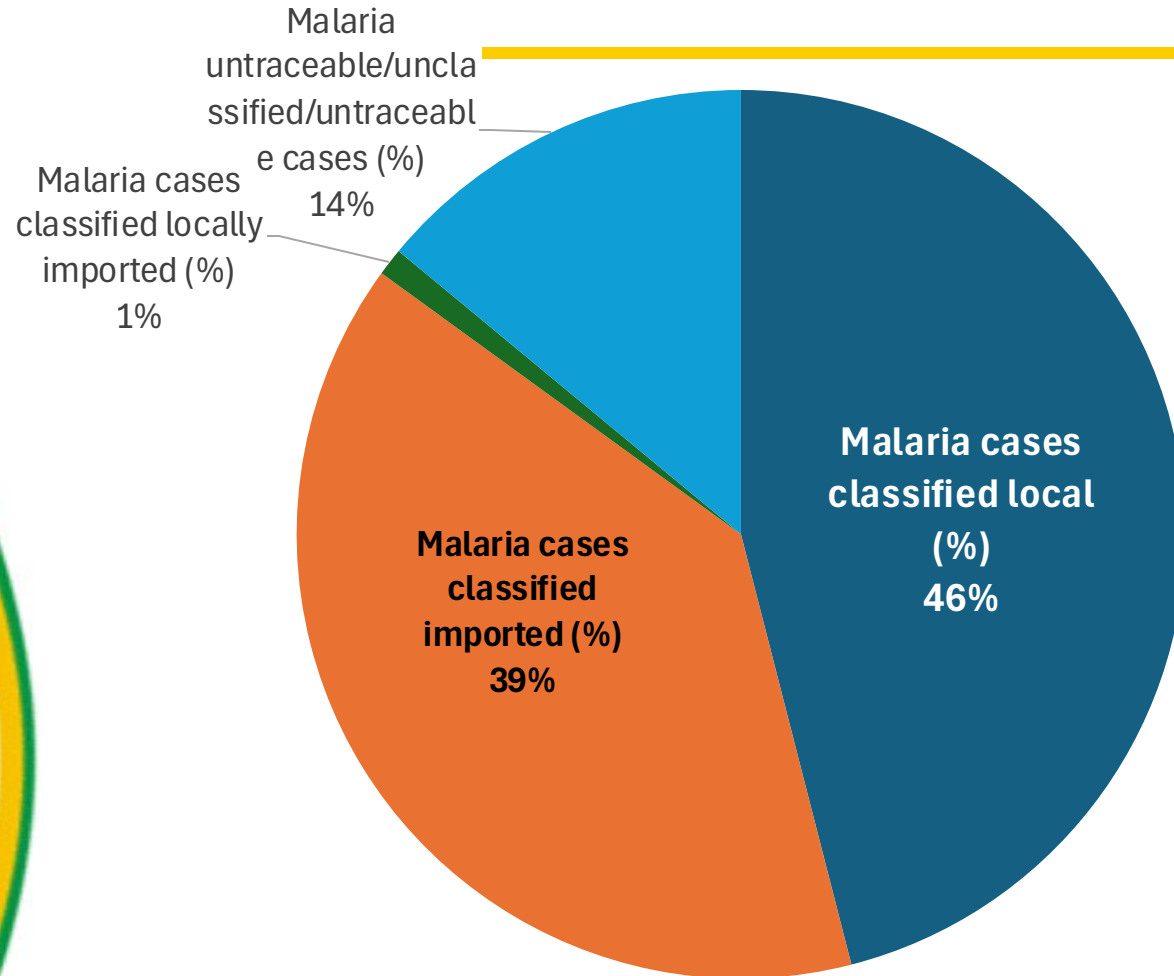
Malaria Cases & CFR1999/2000- 2024/25

- Malaria Cases Fatality Rate**

2020/2021= 0.55% (19/3461)
2021/2022= 0.43 % (16/1978)
2022/2023= 1.25 % (28/2231)
2023/2024=0.74% (35/4703)
2024/2025= 0.3% (3/757)



Malaria Case Classification

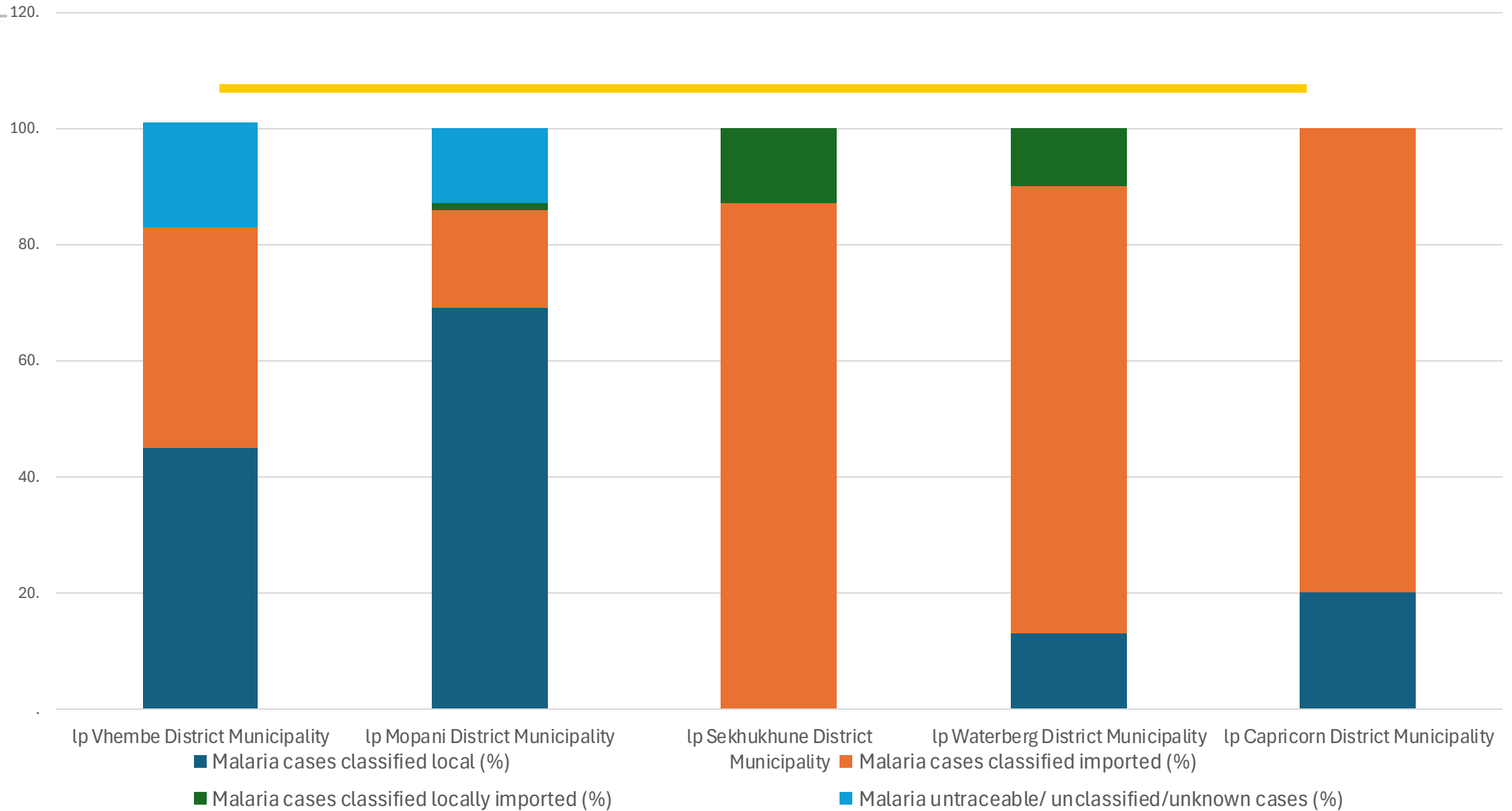


- Nearly **half of all cases** are due to **local transmission**, requiring intensified interventions at community level.
- **39% imported cases** emphasize the importance of **regional collaboration** and border malaria initiatives. (bulk of cases reported by LSDI teams)
- **1% Locally imported** cases from neighbouring provinces
- **14% unclassified cases** highlight surveillance system weaknesses



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Malaria District Case Classification



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Limpopo Malaria Programme

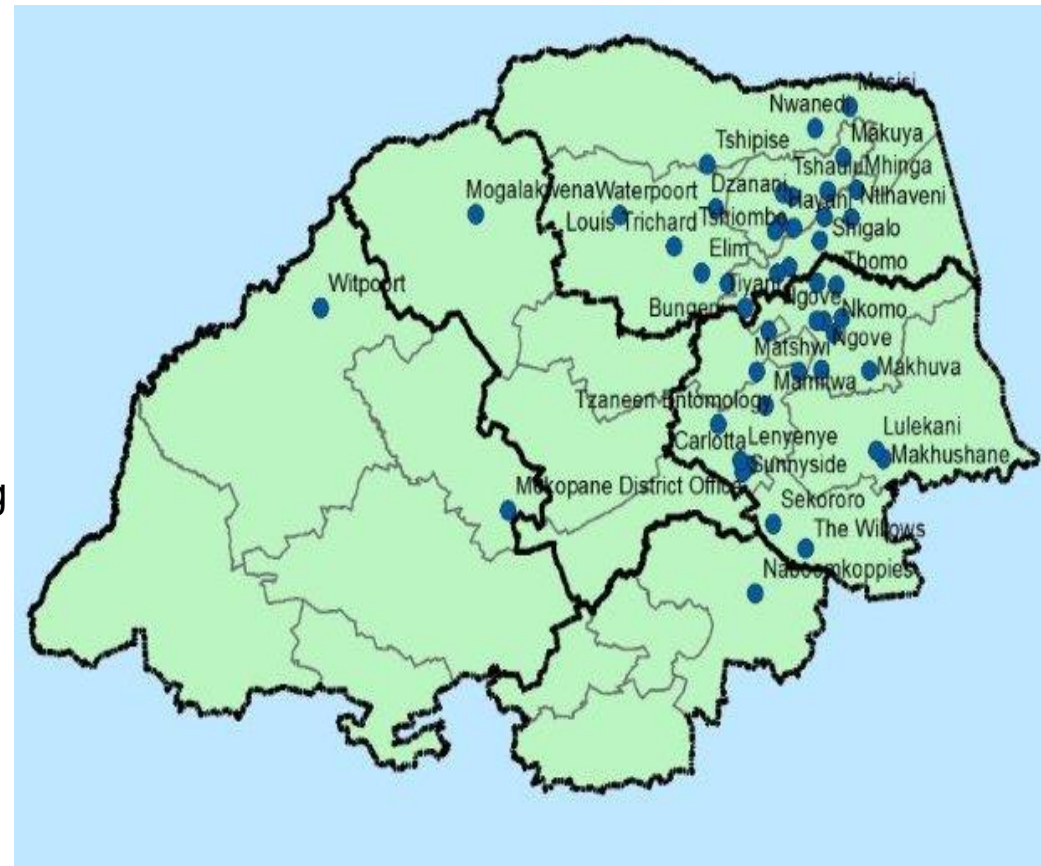
- Programme Management
- Case Management
- Vector Control
- Advocacy, Social Mobilisation and Social Behaviour Change Communication (SBCC)
- Surveillance Monitoring and Evaluation, and Operational Research (SMEOR)



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Limpopo Malaria Control Programme (MCP) Overview

- The **Malaria Control Programme (MCP)** operates **48 malaria stations** across the province, located mainly in the **eastern regions (Vhembe and Mopani Districts)**, where malaria transmission is highest.
- Station distribution:**
 - Vhembe:** 25 stations
 - Mopani:** 19 stations
 - Waterberg:** 2 stations
 - Capricorn:** 1 station
 - Sekhukhune:** 1 station
- All MCP stations are **attached to PHC or CHC facilities**, ensuring a **coordinated and integrated malaria response** at the community level.
- Each station is staffed with:**
 - **1 Environmental Health Practitioner (EHP)**
 - **1 Foreman**
 - **2 Spray Operators** (increasing to **8 during spraying season**)
- This structure enables **efficient planning, vector control, case management, and surveillance** across all endemic areas.





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Integrated Vector Control – Indoor Residual Spraying (IRS)

Indoor Residual Spraying (IRS) is a key malaria vector control intervention involving spraying the inner walls of houses with residual insecticides to kill mosquitoes that rest indoors after biting.

Why IRS?

- Vectors bite inside houses and rest on walls before flying out.
- Insecticide on the wall kills mosquitoes on contact, breaking the transmission cycle.

Insecticides used:

- DDT and Pyrethroids – provide long-lasting residual protection.

Advantages:

- Highly effective in reducing indoor mosquito populations.
- Provides community-wide protection when coverage exceeds 80%.
- Can be integrated with other interventions such as source reduction.

Challenges:

- Costly and labour-intensive.
- Environmentally risky – may affect non-target species.
- Requires skilled personnel and strict safety monitoring.

IRS remains one of the most effective malaria prevention tools, but success depends on sustained funding, a trained workforce, and environmental responsibility.





Health Promotion activities



- **Community engagement** remains a cornerstone of malaria prevention and elimination efforts in Limpopo Province.
- Health promotion activities aim to **increase awareness, encourage behaviour change, and strengthen community participation** in malaria control.

Key Health Promotion Activities

- Health education and awareness campaigns
- Community radio and local media programmes
- School health and youth engagement programmes
- Door-to-door health education
- Community dialogues and traditional leadership involvement
- Information, Education & Communication (IEC) materials



MALARIA ALERT!

THE MALARIA SEASON HAS ARRIVED



PROTECT YOURSELF AND YOUR FAMILY. KNOW THE SIGNS. ACT FAST.

WHAT IS MALARIA?

Malaria is a life-threatening disease spread by the bite of an infected mosquito.

COMMON SIGNS & SYMPTOMS

- ➔ High Fever (comes and goes in cycles)
- ➔ Chills and Shivering
- ➔ Headache
- ➔ Muscle and Joint Pain
- ➔ Fatigue / Weakness
- ➔ Nausea or Vomiting
- ➔ Diarrhea (sometimes)
- ➔ Confusion or Seizures (in severe cases)

PREVENT MALARIA – STAY SAFE

- ➔ Use mosquito repellents
- ➔ Remove stagnant water around your home
- ➔ Wear long sleeves and pants in the evening



IF YOU NOTICE THESE SYMPTOMS

- ➔ Seek medical attention immediately!
- ➔ Visit your nearest clinic, health centre or hospital and ask for a malaria test.
- ➔ Malaria is treatable, but only if caught early!
- ➔ If you are infected complete your treatment course.

NB: FOR MORE INFORMATION PLEASE **CONTACT:** MALARIA CONTROL PROGRAMME 015 307 3736

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www.ldoh.gov.za [LimpopoDepartmentOfHealth](https://www.facebook.com/LimpopoDepartmentOfHealth) [@HealthLimpopo](https://twitter.com/HealthLimpopo) [limpopo.health.bophelong](https://www.instagram.com/limpopo.health.bophelong)

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UHC and Malaria

According to the **World Health Organization (WHO)**:

- **“Universal health coverage (UHC) means that all people have access to the full range of quality health services they need, when and where they need them, without financial hardship.”**

How Universal Health Coverage (UHC) Drives Malaria Elimination

1. Strengthening Access & Equity

- Expands PHC reach to rural, high-transmission areas.
- Removes financial barriers to care and treatment.
- Prioritizes vulnerable groups: Pregnant women, children under five, and migrants.

2. Integrated Service Delivery

- Embeds malaria services into routine PHC.
- Trains health workers for holistic service delivery.
- Links with surveillance systems for timely detection and response.

World Health Organization, Universal Health Coverage fact sheet, updated 2023.



UHC and Malaria

How Universal Health Coverage (UHC) Drives Malaria Elimination

3. Community Empowerment & Engagement

Leverages CHWs for early detection and education.

Fosters trust, participation, and sustained behavior change.

4. Cross-Sectoral Collaboration

Integrates malaria action across water, housing, and environment sectors.

Supports regional partnerships (e.g, SADC) for coordinated elimination efforts.

5. Sustainable Financing

Pools domestic and donor funds for long-term program stability.

Ensures consistent supply of ITNs, RDTs, and antimalarials.

Promotes efficient budgeting and strategic purchasing.

World Health Organization, Universal Health Coverage fact sheet, updated 2023.

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PHC as a Platform for Malaria Elimination through UHC in SADC

Primary Health Care (PHC) is the foundation of Universal Health Coverage (UHC) and a key entry point for integrated malaria prevention and control. Through PHC, malaria services become accessible, equitable, and sustainable, reaching rural and underserved communities.

- **Early detection and prompt treatment:**

- PHC facilities provide free malaria testing (RDTs) and effective case management, preventing severe illness and death.

- **Integrated service delivery:**

- Malaria prevention and treatment are delivered alongside maternal, child health, TB, and HIV services.

- **Preventive interventions:**

- PHC platforms support community health education.

- **Community-based outreach:**

- PHC-linked Community Health Workers (CHWs) conduct door-to-door awareness, case detection, and referrals.

- **Surveillance and response:**

- PHC data feeds into national surveillance systems (DHIS2), NMC for early outbreak detection and targeted action (Response).

Strengthening PHC within UHC frameworks ensures universal access to malaria services without financial hardship, enhancing resilience and accelerating elimination efforts across the SADC region.



Challenges in Integrating Malaria Elimination into PHC

Community and Behavioural Barriers:

- declining perception of malaria risk.
- IRS fatigue – reduced acceptance of interventions in households.
- Sociocultural factors affecting prevention and treatment-seeking behaviours.

Cross-Border :

- High population mobility contributes to imported malaria and reintroduction in low-transmission areas.

Environmental Challenges:

- Vector resistance to insecticides and parasite resistance to antimalarial drugs complicate control efforts.
- Climate change alters transmission patterns and extends breeding seasons.

Health System Challenges:

- Limited human resources at PHC level – overburdened staff reduce attention to malaria activities.
- Inadequate infrastructure and diagnostic capacity (laboratory) in remote areas.

Opportunities for Integration of Malaria Elimination into PHC and UHC in the SADC Region

Strengthen the SADC Malaria Elimination 8 (E8) initiative and facilitate cross-border surveillance and coordinated response.

Shared training and leadership development across SADC enhances technical capacity and regional solidarity.

Digital innovations (mHealth tools, GIS mapping) enhance case detection and vector control monitoring.

Integrated service delivery improves efficiency – malaria interventions delivered alongside MCH, HIV, TB, and NCDs.

Empowering Community Health Workers (CHWs) to lead local malaria surveillance and education.

Expansion of community-based testing and treatment under PHC strengthens ownership and trust.

UHC reforms promote inclusion of malaria prevention and treatment in essential health benefit packages.



Conclusion

- ❖ Malaria elimination is achievable through strong, integrated health systems that reach every community.
- ❖ Primary Health Care (PHC) provides the foundation for Universal Health Coverage (UHC) , ensuring equitable access to malaria prevention and treatment services.
- ❖ Integration of malaria services within PHC platforms strengthens efficiency, sustainability, and resilience of the health system.
- ❖ Collaboration across borders, sectors, and communities is vital to sustaining elimination gains.
- ❖ Continued leadership commitment, domestic investment, and community engagement are essential to achieving a malaria-free SADC region by 2030.

“A malaria-free Southern Africa is within reach, if we strengthen our primary health systems, work together, and leave no one behind.”



Acknowledgements

1. **Limpopo Department of Health – Communicable Disease Control (CDC) Unit**
 - For leadership, coordination, and technical guidance in malaria surveillance, response, and elimination activities.
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 - For their dedicated work in malaria vector control, community education, and data-driven interventions across all districts.
3. **District Malaria Control Officers, Environmental Health Practitioners, and Community Health Workers**
 - For their tireless efforts in field operations, indoor residual spraying (IRS), case investigations, and public awareness campaigns.
4. **All partners, stakeholders, and community members**
 - For their continuous support and collaboration towards achieving a malaria-free Limpopo and SADC region.



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