“HEALTHY MIGRANTS IN MALARIA-FREE COMMUNITIES - EQUITABLE ACCESS TO PREVENTION, CARE AND TREATMENT IN POST 2015”

MALARIA AND MIGRANTS AND MOBILE POPULATIONS IN SOUTH AFRICA

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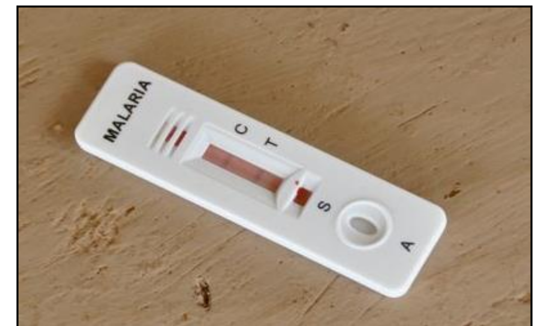
Health
REPUBLIC OF SOUTH AFRICA

Outline of presentation

1. Malaria Profile and Trends in South Africa
2. Regional Malaria initiatives and Profiles
3. Cross Border Malaria Challenges
4. Migrant populations in South Africa implications for malaria transmission
5. Proposed Solutions to Cross Border malaria control



Malaria Trends in South Africa

Migrant Populations in South Africa Implications for Malaria Control

1. On average 2,087,915 travellers cross the South African border every month, 67% are foreigners
2. Of those travelling 70% are by road and ~ 27% by air.
3. 12 of 15 SADC member states are endemic for malaria.
4. 93% of SADC residence into and out of South Africa travel by road
5. From January to December 2011: 6324 malaria Cases were imported into South Africa ~ 64% of the Total Cases for that Year.
6. 85 % of the Cases arose from Mozambique
7. Local Malaria Transmission does occur in South Africa, with 3 provinces: Limpopo; Mpumalanga and KZN being endemic. Secondary transmission is likely in the Vector Receptive areas.
8. Prevention of the reintroduction of Malaria into South Africa is key for malaria elimination in the Country

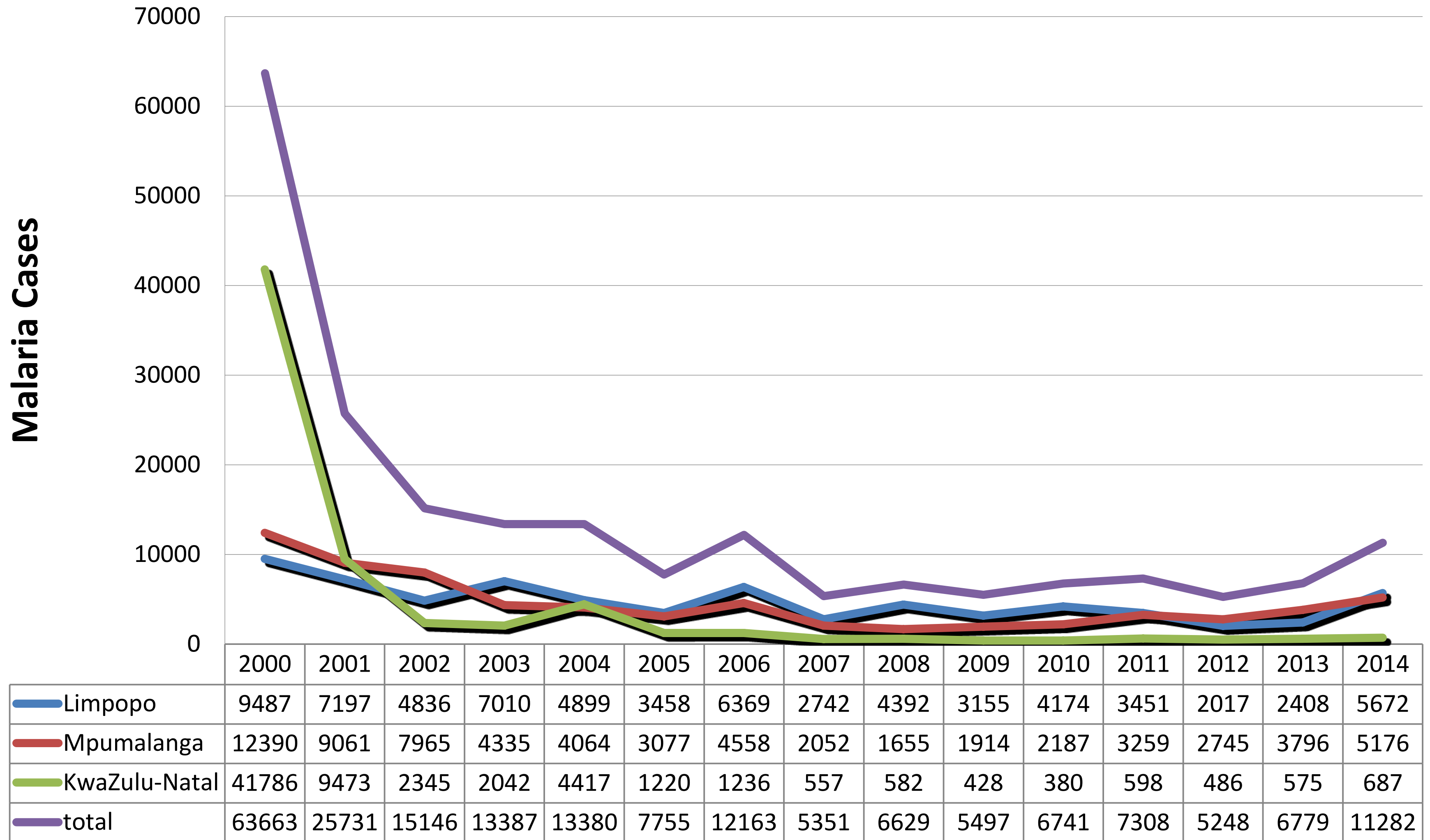
Proportion of Travelers to South Africa by Country of Citizenship

Country of citizenship	Average % of all travellers	African region of citizenship	Average % of African travellers	Country of citizenship within SADC	Average % of SADC tourists
Europe	58.8%	SADC	96.8%	Zimbabwe	26.4%
North America	16.2%	West Africa	1.5%	Lesotho	25.3%
Asia	13.5%	East and Central Africa	1.3%	Mozambique	18.3%
Australasia	5.8%	North Africa	0.2%	Swaziland	11.4%
Central and South America	3.9%			Botswana	8.6%
Middle East	1.7%			Namibia	3.2%
				Zambia	2.7%
				Malawi	2.4%

Percentage of Refugees and Asylum- Seekers for 2011, UNHCH Planning Figures

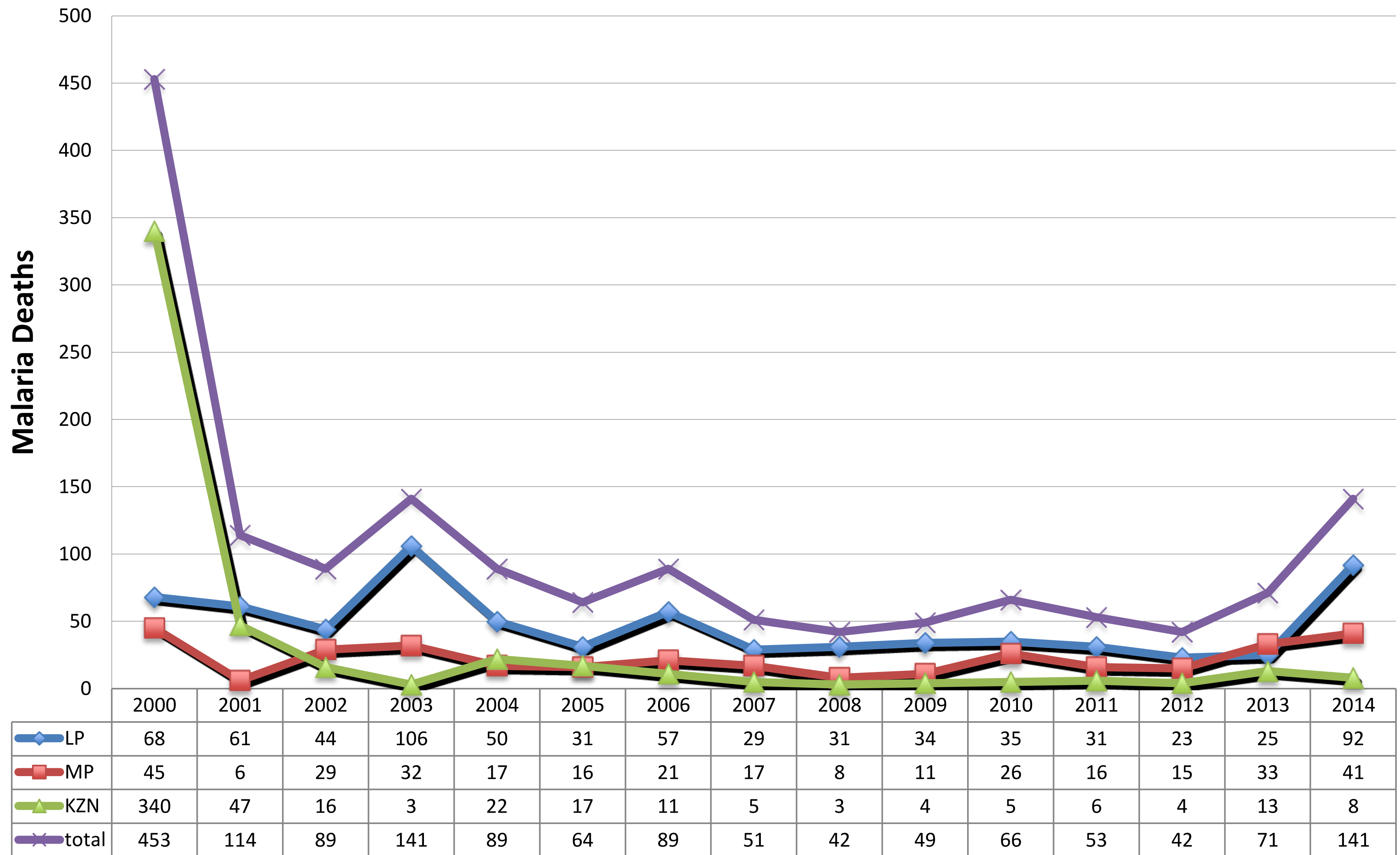
Type of population	Origin	Total in South Africa (as of Dec 2011)	Arrived in South Africa in 2011	% of arrivals in 2011 by country of origin	Malaria incidence rate (total 2010 cases per 1,000 population at risk)
Refugees	Somalia	22,700	1,400	6%	NA
	DRC	12,000	800	3%	113
	Ethiopia	6,500	1,500	6%	73
	Others	16,90	1,300	5%	
Asylum-seekers	Zimbabwe	266,500	5,000	21%	103
	Malawi	40,100	7,000	29%	460
	Ethiopia	27,600	5,000	21%	73
	Others	102,500	2,000	8%	
Total		494,800	24,000		

Malaria Cases in South Africa's Endemic Provinces 2000- 2014



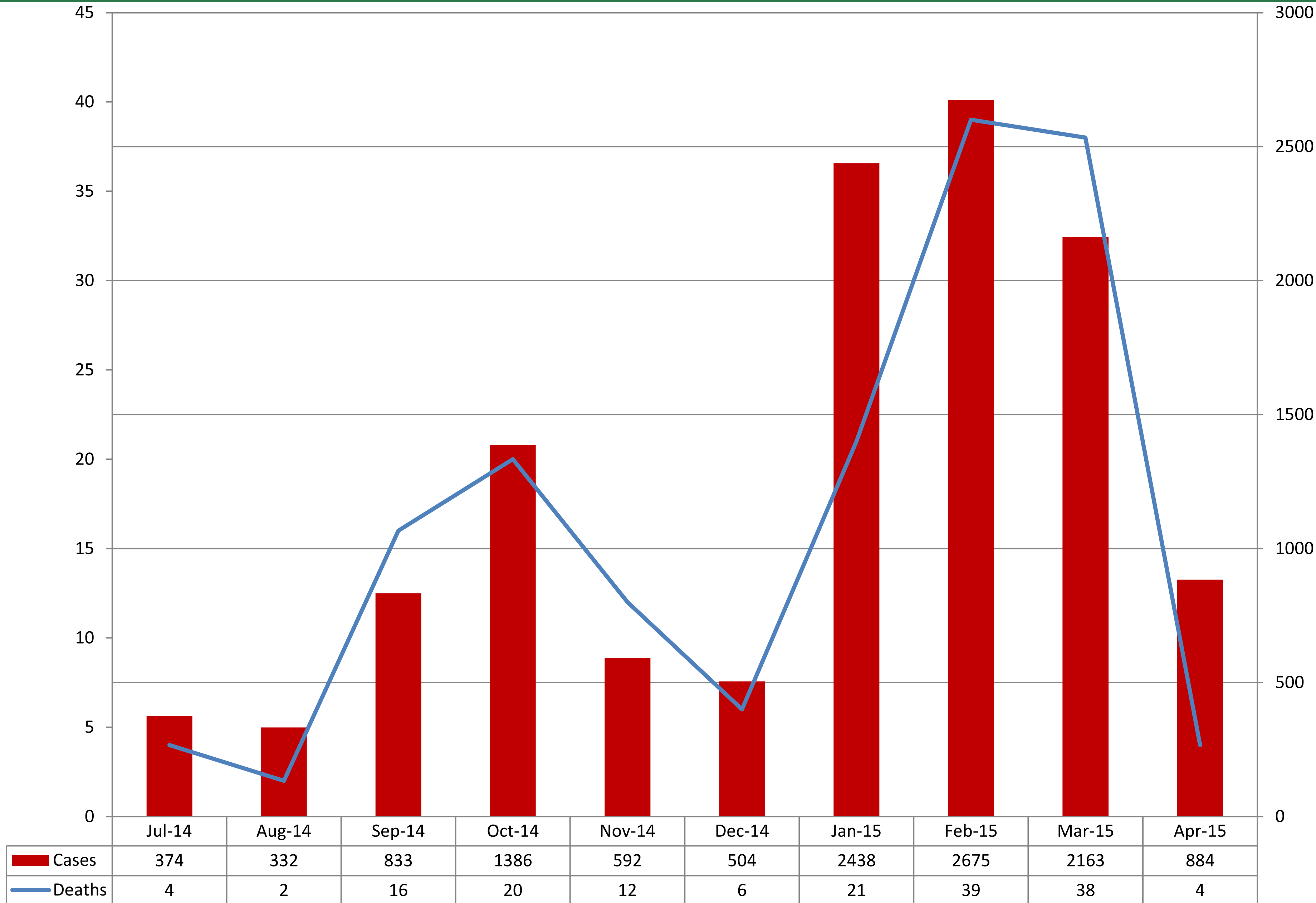
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Limpopo	9487	7197	4836	7010	4899	3458	6369	2742	4392	3155	4174	3451	2017	2408	5672
Mpumalanga	12390	9061	7965	4335	4064	3077	4558	2052	1655	1914	2187	3259	2745	3796	5176
KwaZulu-Natal	41786	9473	2345	2042	4417	1220	1236	557	582	428	380	598	486	575	687
total	63663	25731	15146	13387	13380	7755	12163	5351	6629	5497	6741	7308	5248	6779	11282

Malaria Deaths in Endemic Provinces 2000-2014



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
LP	68	61	44	106	50	31	57	29	31	34	35	31	23	25	92
MP	45	6	29	32	17	16	21	17	8	11	26	16	15	33	41
KZN	340	47	16	3	22	17	11	5	3	4	5	6	4	13	8
total	453	114	89	141	89	64	89	51	42	49	66	53	42	71	141

Total Malaria cases in 2014/15 season in South Africa



	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15
Cases	374	332	833	1386	592	504	2438	2675	2163	884
Deaths	4	2	16	20	12	6	21	39	38	4

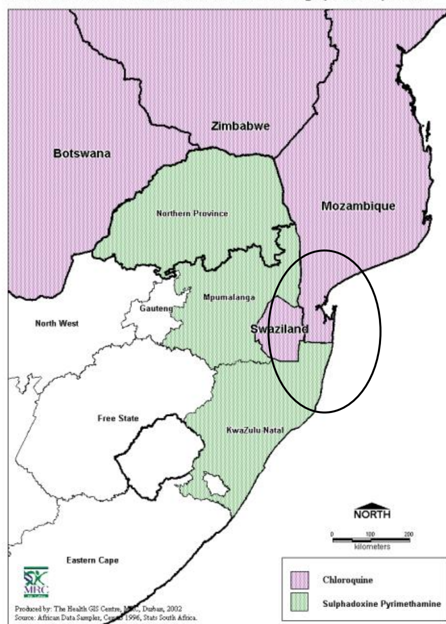
Challenges

- Malaria Cases in South Africa increasing due to several factors:
  - Increased movement of persons with parasites from neighbouring endemic countries.
  - LSDI non function since 2012- lack of financial resources- Global Funding ended
  - Above average rainfall for the past 2 years
  - Financing for malaria decreasing
  - Human Resource capacity decreasing

Priorities

- Sustain gains on LSDI, through resource mobilisation;
- Strengthen collaboration through regional initiatives such as the E8.
- Improve surveillance of malaria in South Africa and the region, so that foci of transmission are identified and removed.

Cross Border Project- LSDI (Lubombo Spatial Development)

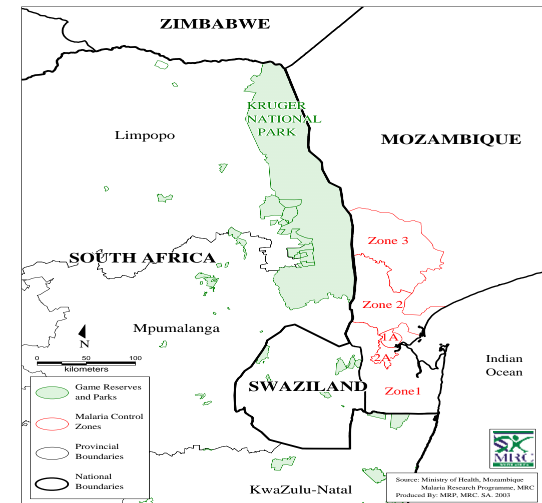


Broad objective of the LSDI

- The Lubombo Spatial Development Initiative (LSDI) was aimed at accelerating development, particularly with regard to tourism within an area of approximately 100 000 square kilometres.

- The region was largely undeveloped, this being exacerbated by the fact that it falls within a malaria area.

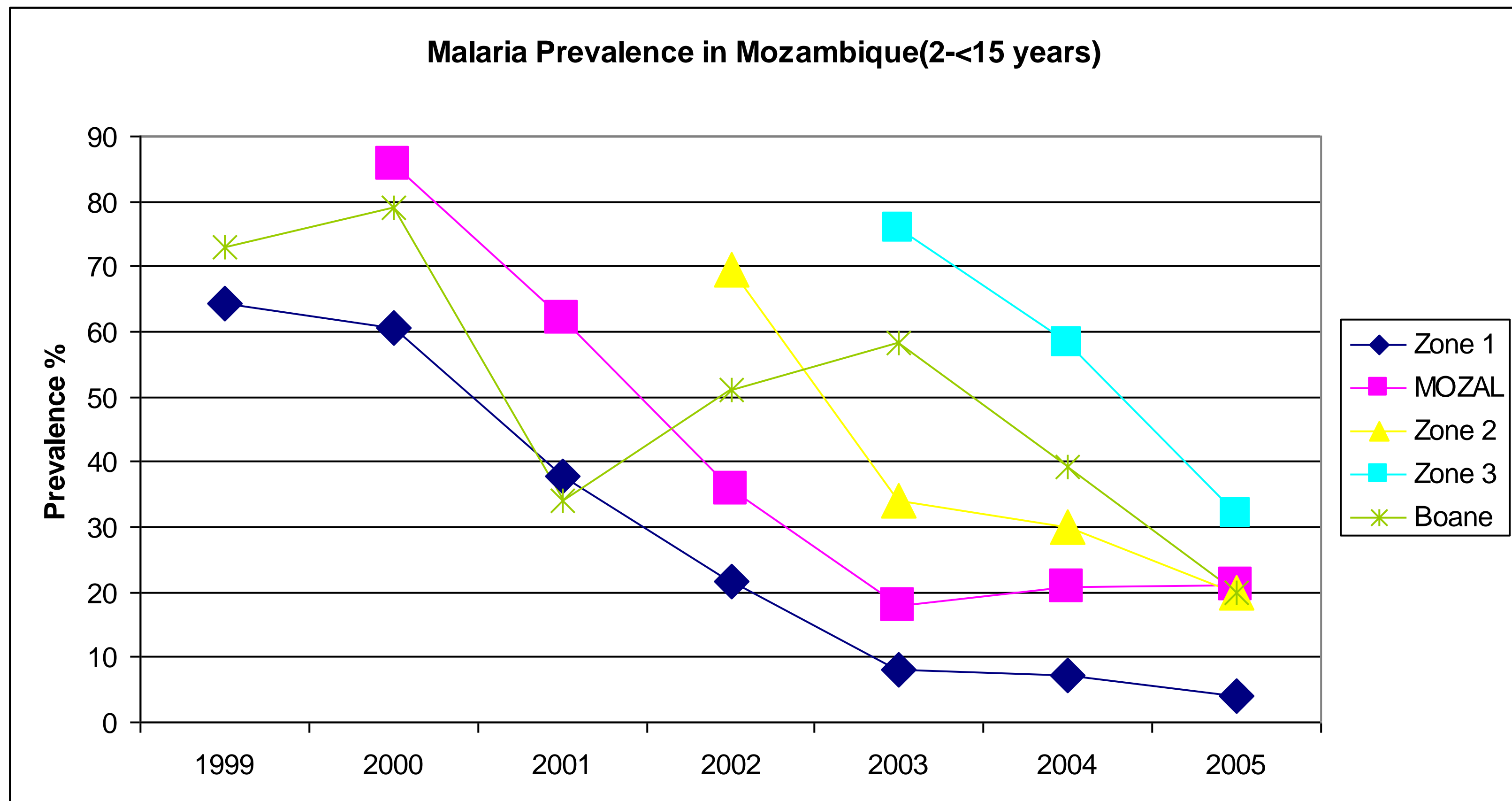
- A regional approach was required in order to reduce the negative impacts of the disease on the communities, business and tourism development opportunities



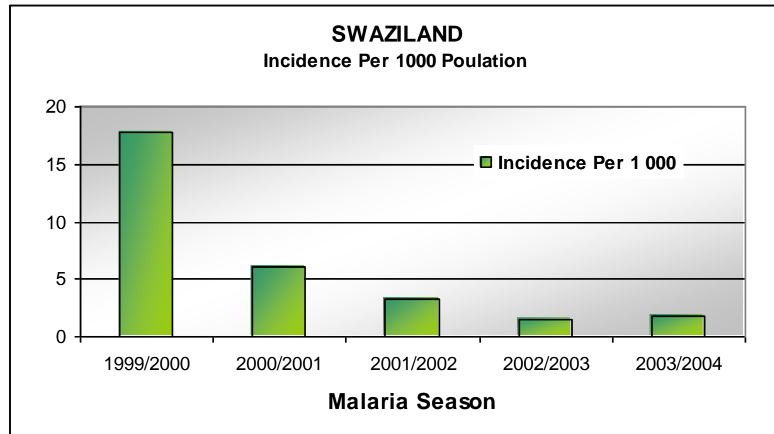
LSDI Malaria Objectives

1. To reduce malaria incidence in the border areas of South Africa and Swaziland from 250 per 1000 to less than 20 per 1000. Done
2. To reduce malaria infections from 625 per 1000 to less than 200 per 1000 within three year after the start of IRS in Maputo Province Done, Zone 1
3. To provide updated tourist information booklets containing definitive malaria risk maps and prophylaxis guideline Done
4. To develop a regional malaria control programme Done
5. To develop a regional GIS based malaria information system Done
6. To implement effective treatment and definitive diagnosis SA and Zone 1 Done

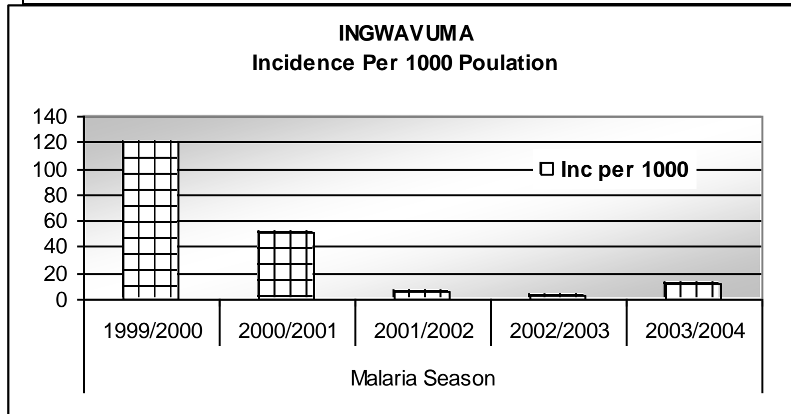
Malaria Reductions in Mozambique



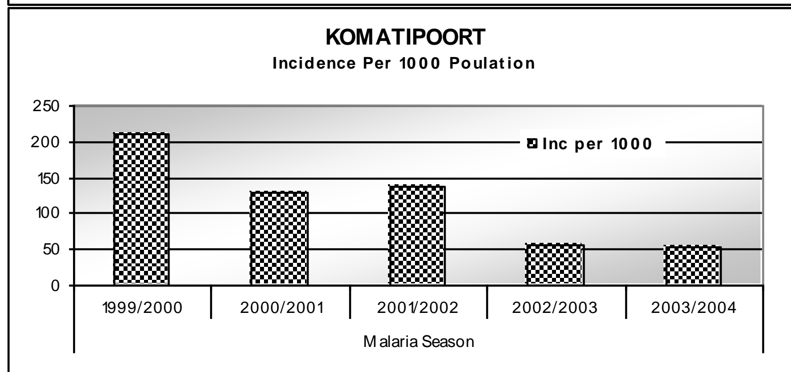
Malaria Reductions in South Africa -1999-2004



No change in insecticide or drug but a >90% reduction in malaria cases since control started in bordering Mozambique

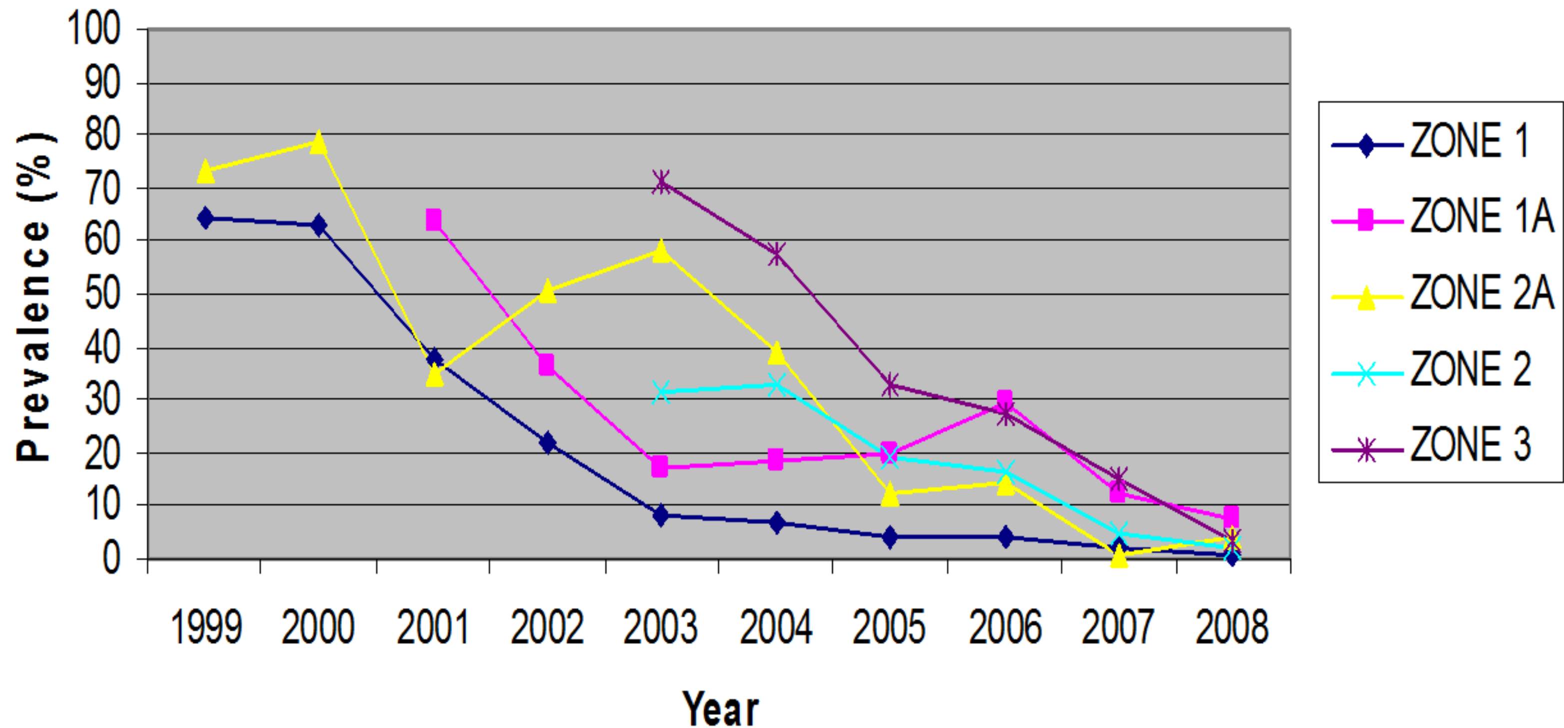


Since the reintroduction of DDT for vector control in 2000, the start of vector control in southern Mozambique and the introduction of ACT as first line treatment there has been a >90% reduction in malaria incidence in comparison to the 1999/2000 malaria season.



a significant reduction in notified cases since the start of vector control in adjacent areas in Mozambique and the introduction of ACT.

Malaria Reductions in Mozambique



Changes in Percentage Prevalence of *Plasmodium falciparum* Infection in Children Aged 2 to < 15

Maputo and Gaza Provinces, Mozambique –– Lubombo Spatial Development Initiative (LSDI)

Baseline Years
1999 - Zones 1, 2A
2000 - Zone 1A
2002 - Zone 2
2003 - Zone 3
2006 - Zones 4, 5, 6
2008 - Zone 7

Percentage Prevalence by Malaria Control Zone

- < 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 50
- 51 - 60
- 61 - 70
- 71 - 80
- 81 - 90
- >= 91
- Province

Date: 05 October 2010

Data sources: Estatistica Geographica, Gaza Province Malaria Control Programme, Maputo Province Malaria Control Programme

LUBOMBO Spatial Development Initiative

Map produced by the Health GIS Centre
Malaria Research Programme
Medical Research Council
South Africa

Tel: +27 (31) 203 4700
Fax: +27 (31) 203 4704
Url: www.mrc.ac.za

0 30 60 120 km

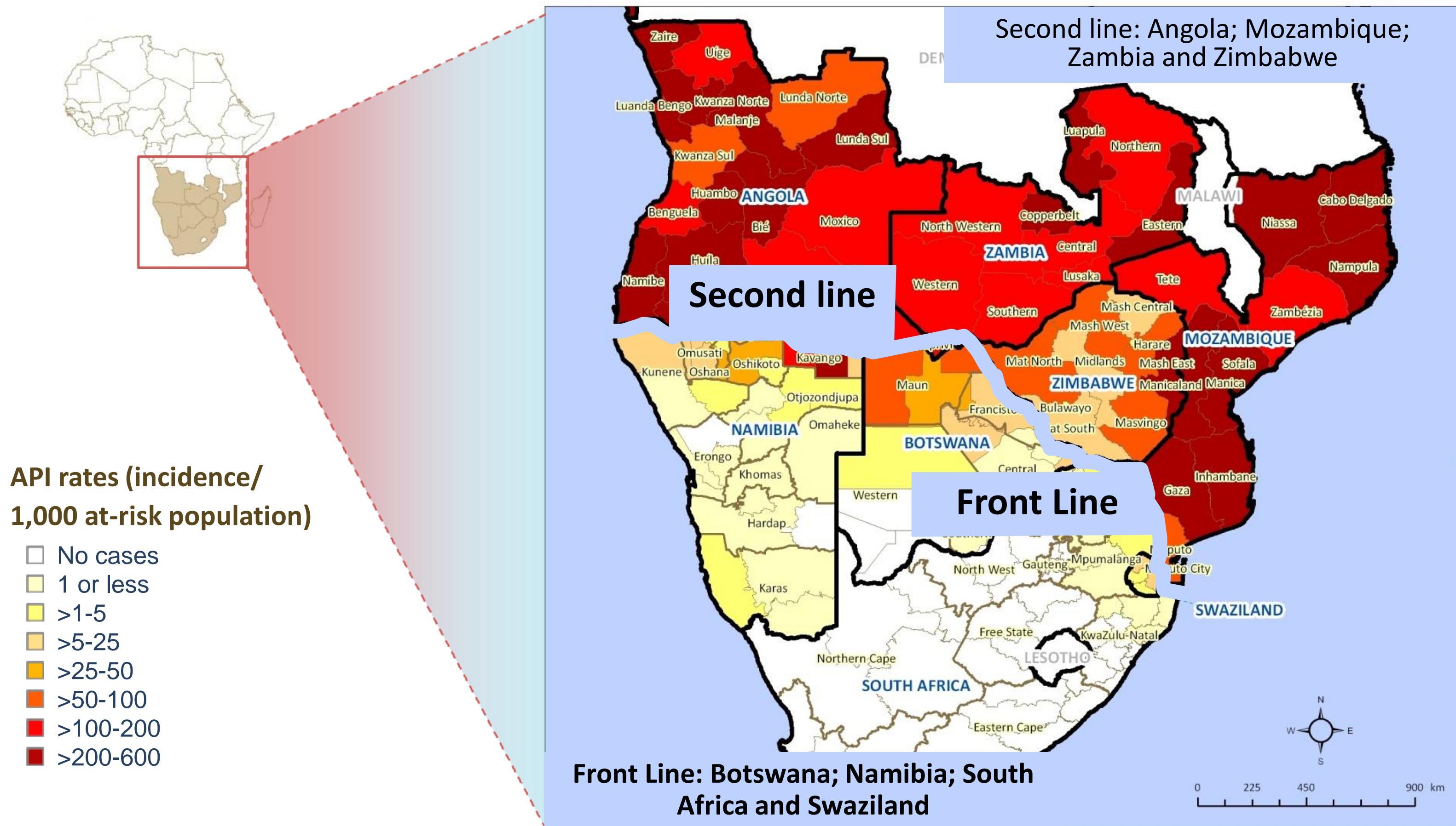
Elimination 8

Questions/Discussion

*“ Eliminating malaria needs
change in mindset, change
in game plan and renewed energy.*

*There is no time better than **now**
to rid Africa of malaria...”*

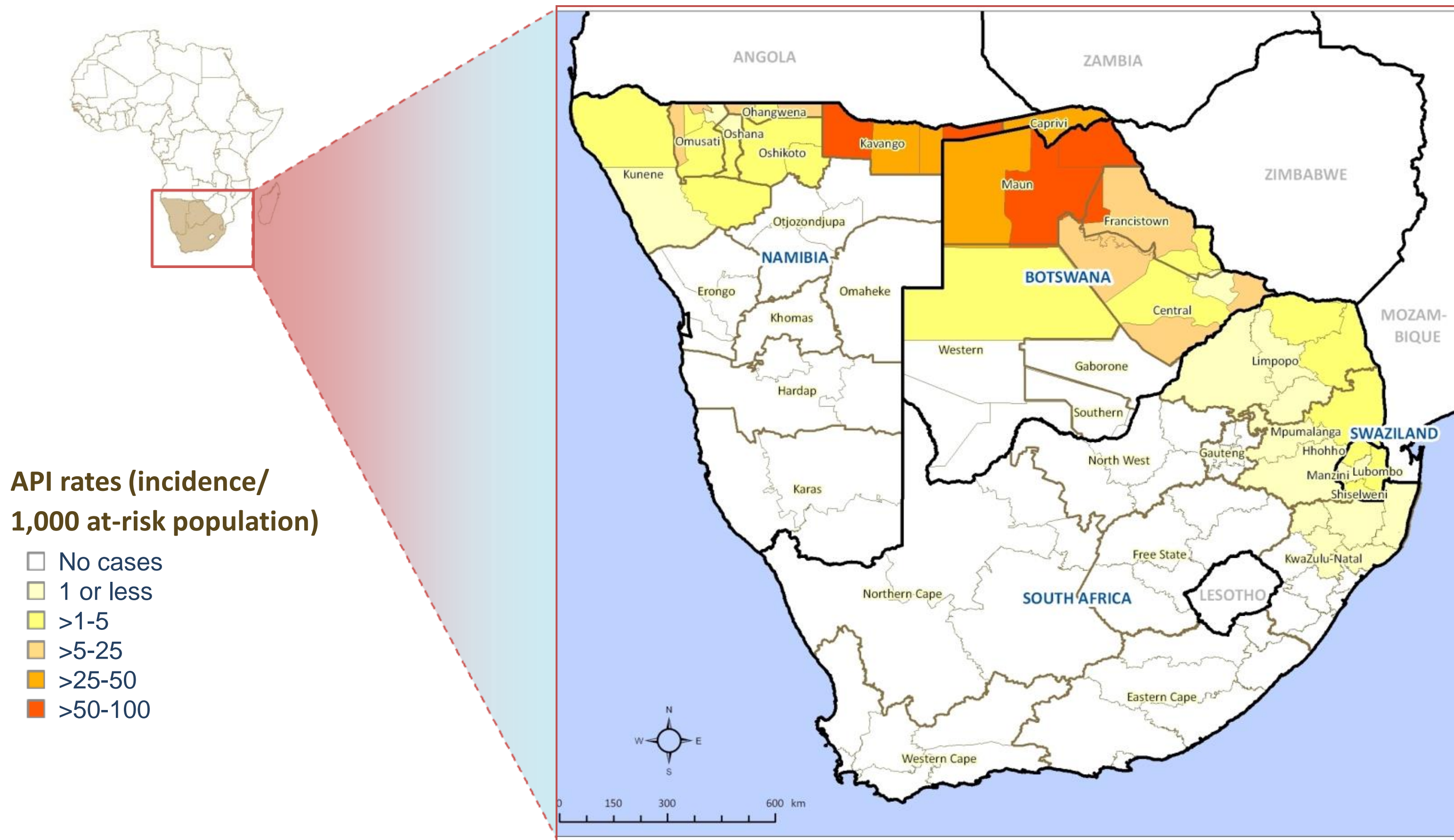
Overview of Malaria Elimination - E8 Countries



API: Annual Parasite Incidence, used to measure the number of cases recorded in a given year relative to population
Note: Includes all cases, both confirmed and clinically diagnosed, both imported and local
Source: WHO World Malaria Report 2010; South African Department of Health; Swaziland Ministry of Health, Statistics South Africa

Elimination 4 Countries

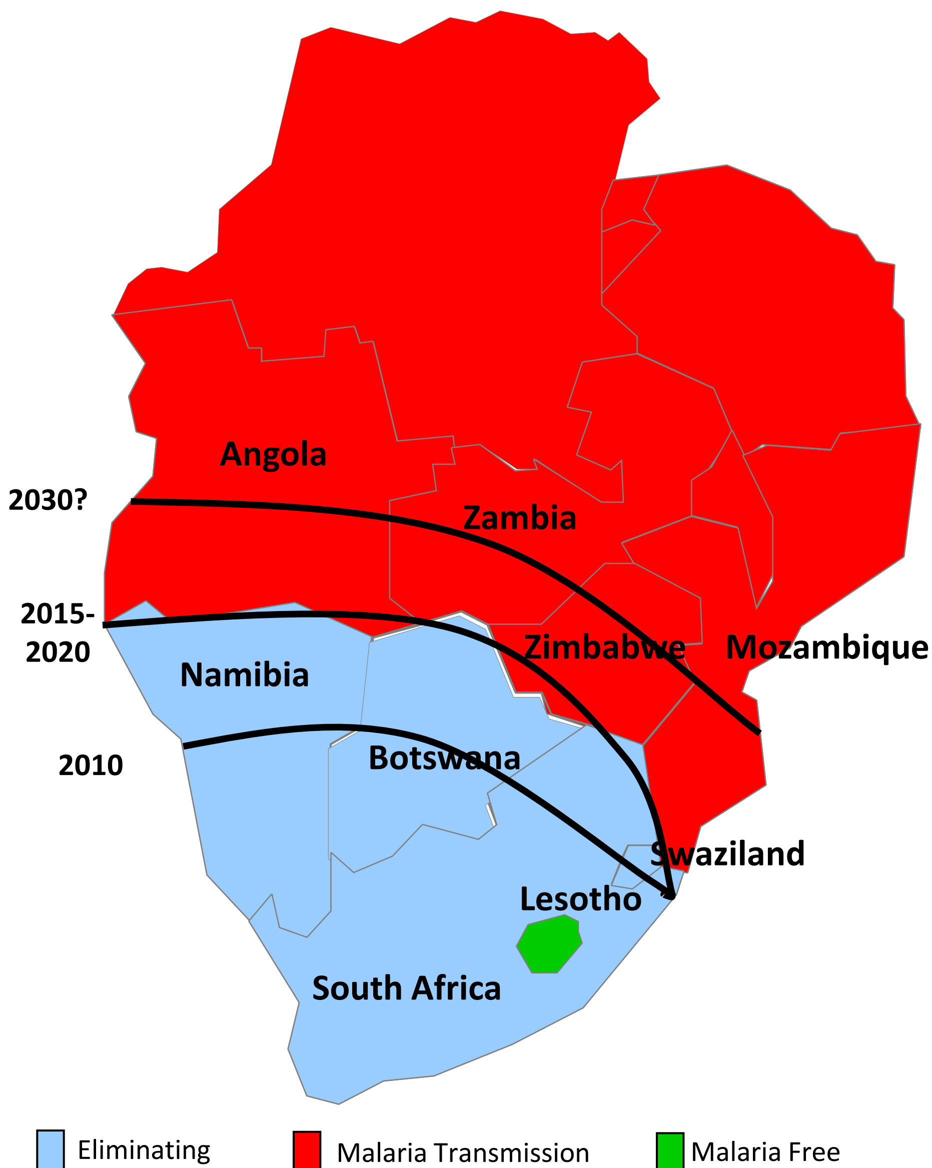
Botswana; Namibia; South Africa and Swaziland



Note: Includes all cases, both confirmed and clinically diagnosed, both imported and local
Source: Ministry of Health Namibia; South African Department of Health; Swaziland Ministry of Health; Statistics South Africa

Regional mandates for elimination

Committing South Africa and its neighbours to elimination



African Union 2007 Launch of Africa Malaria Elimination

"The approach in these countries should be the implementation of anti-malaria programmes deliberately aimed at elimination."

Windhoek Elimination 8 Declaration by the SADC Health Ministers

"We, the SADC Ministers of Health of the E8 countries, affirm that the following are our major priorities to achieve malaria elimination:

1. *Strengthening of existing cross-border collaboration*
2. *Building of health system capacity to effectively implement, sustain, monitor, and evaluate malaria elimination programmes"*

Access to Malaria Control and Elimination Services and challenges and Proposed Solutions

Access

- The National Malaria Elimination Strategy (Developed in 2011) is targeting malaria elimination by 2018, has included activities for reaching migrants and vulnerable populations.

- **All persons** entering South Africa **can access the public health services**, where malaria testing and treatment is offered.

Challenges

- Language is often a problem among Migrants
- Migrants present late to health facilities
- lack of trust towards health care providers
- Health Care facilities not necessary close to the point of entry into South Africa

Access to Malaria Control and Elimination Services and challenges and Proposed Solutions Continue

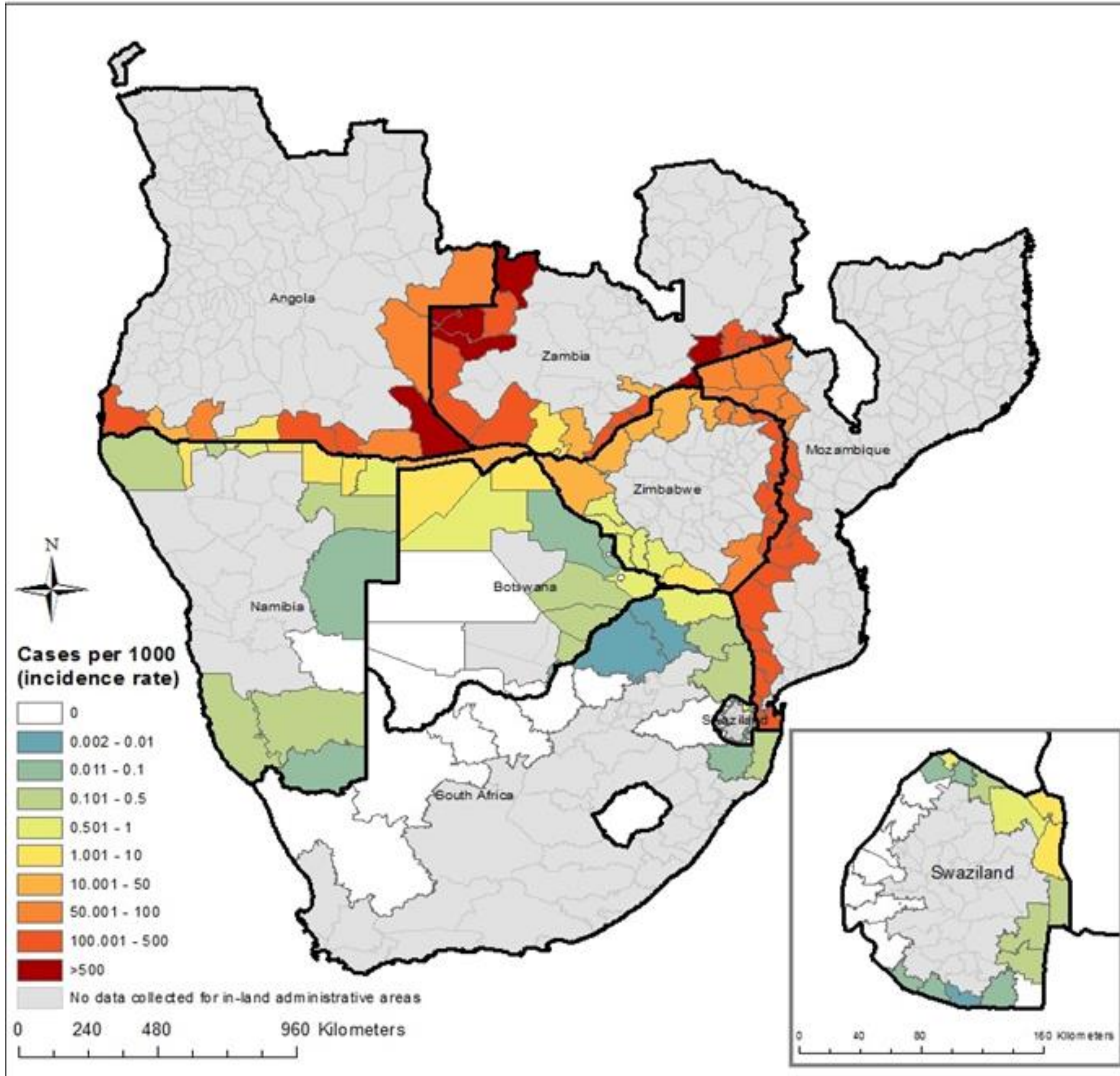
- IV Artesunate registration is an issue- no company wants to register.
- Cross Border movement of persons with malaria- Mozambique
- No company wants to register Primaquine
- Too many regional players in Southern Africa
- HR Capacity
- Funding

Access to Malaria Control and Elimination Services and challenges and Proposed Solutions

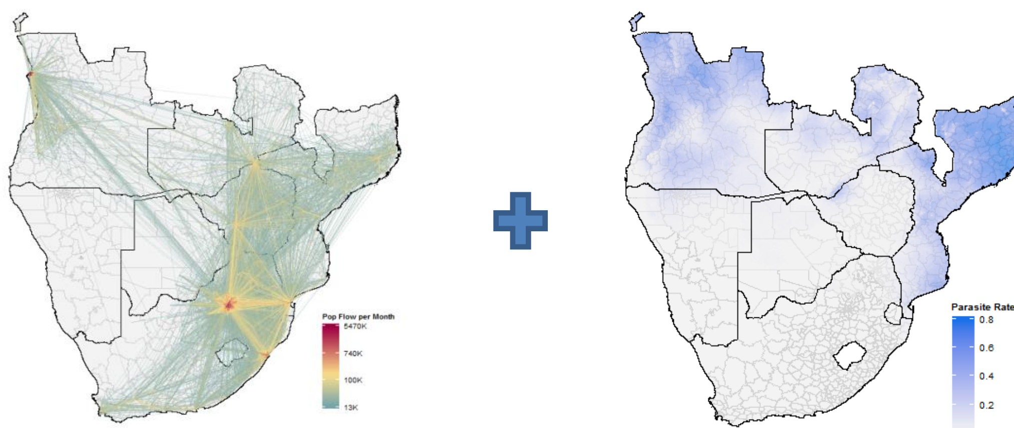
Proposed Solutions

- Need for Government to better coordinate and direct interventions by Partners
- Scaling up IEC to ensure regional languages are included to accommodating all migrants
- Working closely with organisations such as E8 WHO, IOM, SADC and SARN
- Strengthening cross border collaboration with neighbouring countries and ensuring, Surveillance, IEC and Case Management is a strong component

There is significant heterogeneity in transmission within the E8 sub-region; importation of infections across borders is a significant threat to elimination.

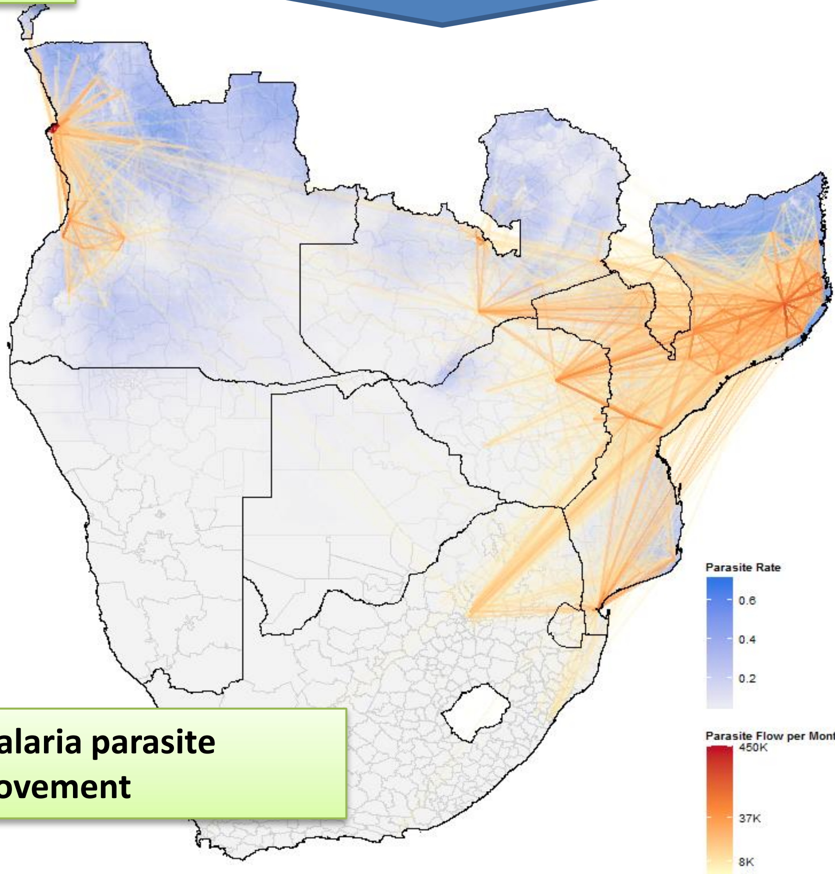


	Incidence, per 1,000
BO	0.3
SA	0.2
SW	0.5
NA	2.1
ZW	2.9
ZA	371
AN	143
MO	161



Prevalence at origin of transmission

Human mobility



Malaria parasite movement

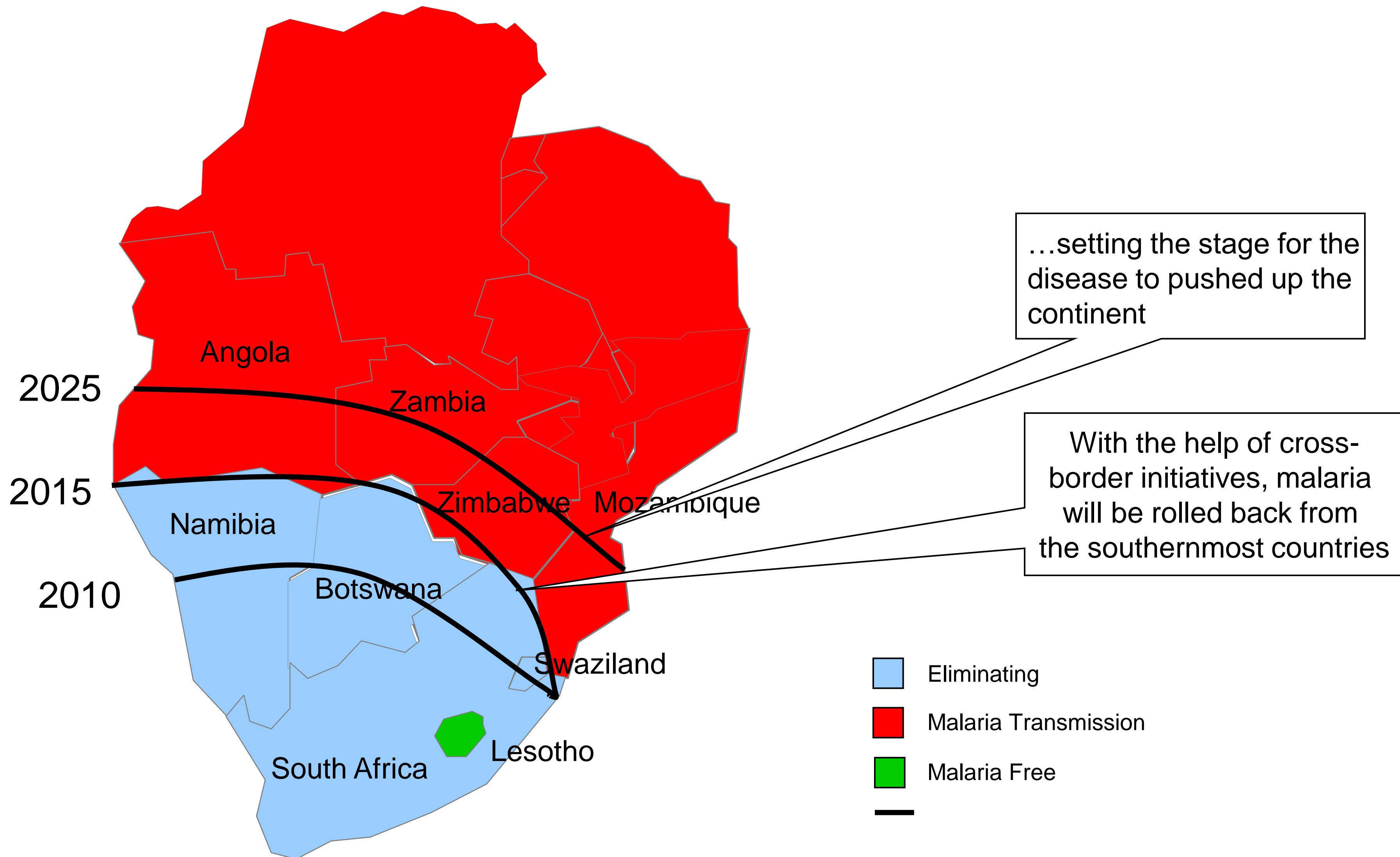
The countries of the E8 – the four front line countries, and their northern neighbours, the second line countries – are highly interconnected through :

(i) Population movement

(ii) Related malaria ecology

As a result, there is a need for a coordinated approach to achieving elimination in southern Africa

Southern Africa is adopting a spatially progressive model of elimination, moving the boundary of malaria transmission from south to north



What is needed to achieve elimination in this region, and how does E8 fill those gaps?

1. **Policy prioritization**
2. **Reduce importation**
3. **Regional transmission picture**
4. **Entomological expertise**
5. **Quality assured diagnosis**
6. **Community engagement**

1. **Engagement with Ministers of Health and Finance, and Heads of State**
2. **Early diagnosis and treatment among MMPs**
3. **Regional surveillance system and database**
4. **Regional expert entomologist**
5. **Regional laboratory**
6. **Use of community health workers**

Success Factors and Challenges

Success Factors:

- Political commitment at the highest levels, including Heads of State
- The right balance between integration and parallel systems
- Maintenance of accountability
- Alignment with rich partner landscape, to ensure we are pulling in one direction – investments into elimination by other partners

Challenges:

- Political commitment has not translated to domestic resource allocation
- Need for a compelling investment case into regional activities, especially for domestic policymakers
- Meticulous operational precision requires very strong health systems, especially for surveillance and community health service provision
- Insecticide resistance

Thank you for your Attention

Merci boucoup