

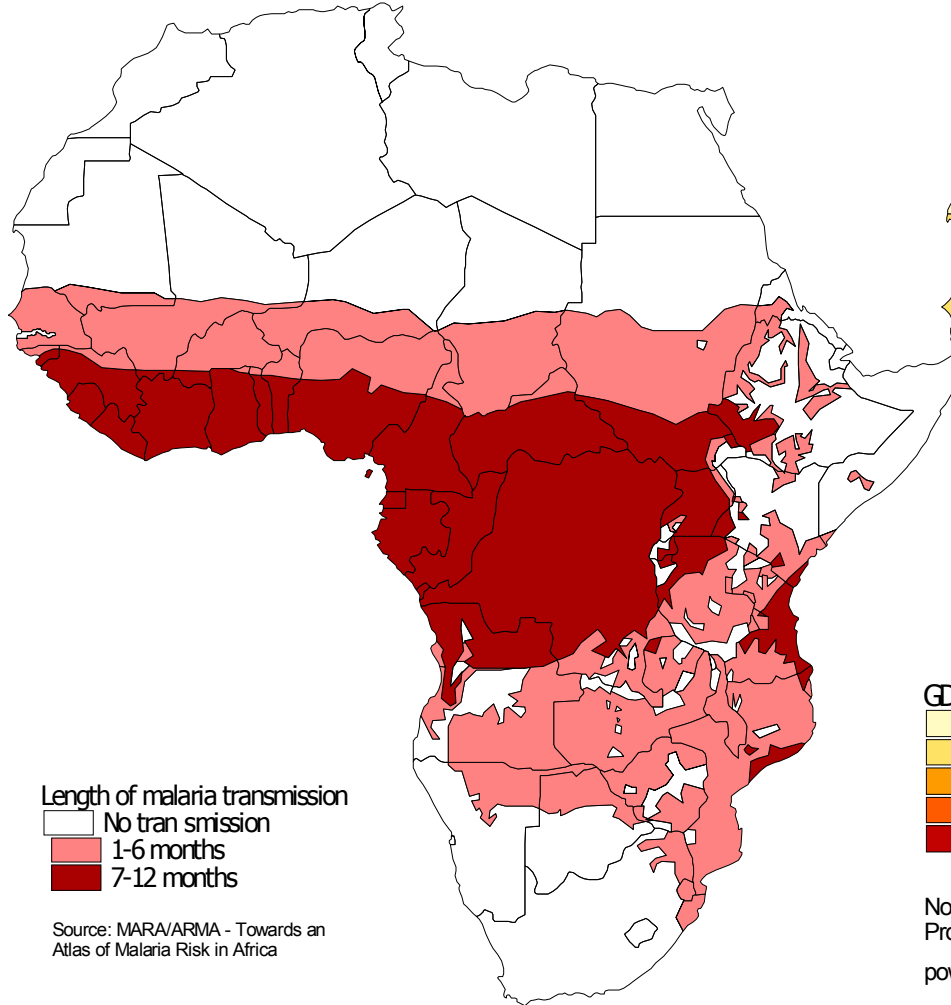


# Technology & Public Health – experiences with malaria control

AFRICANDO – 20 JULY 2006

Richard Tren

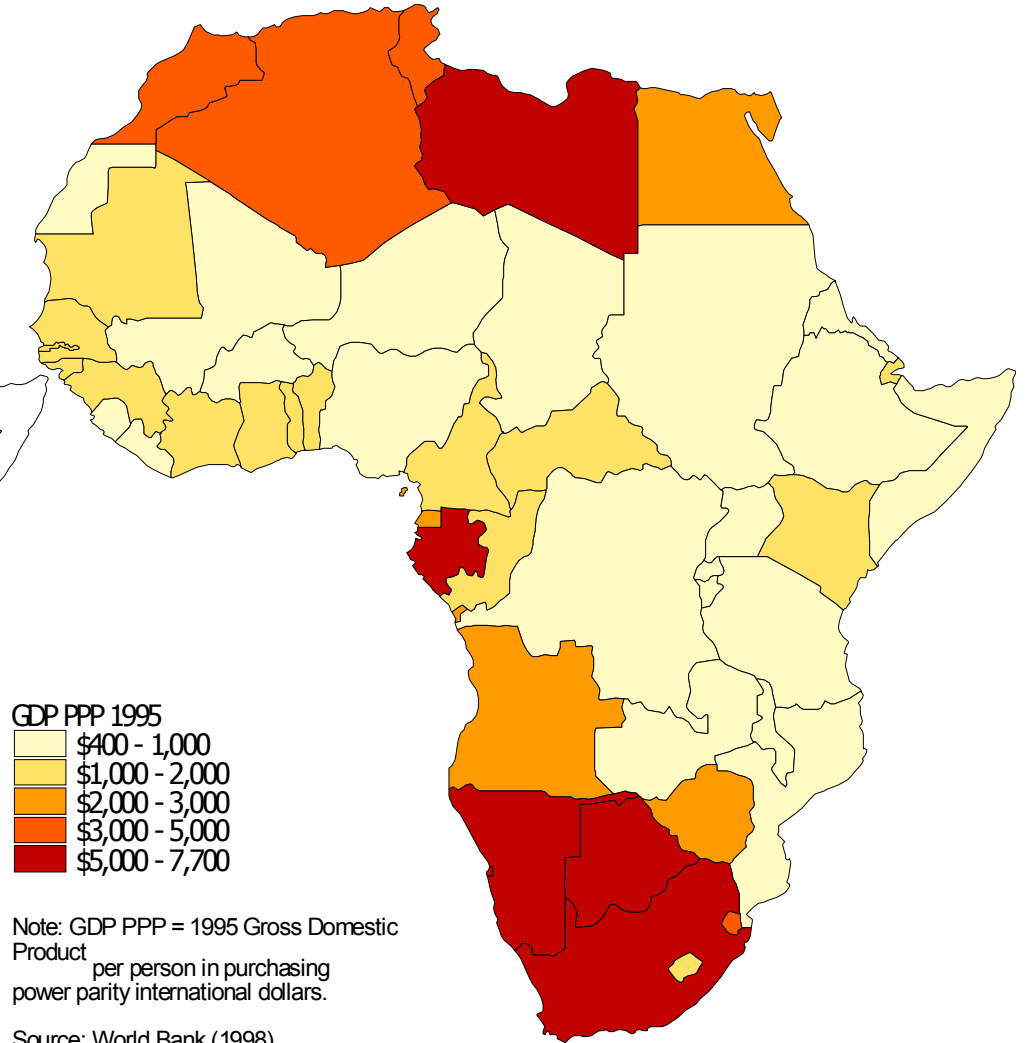
## Malaria transmission



Length of malaria transmission  
No transmission  
1-6 months  
7-12 months

Source: MARA/ARMA - Towards an Atlas of Malaria Risk in Africa

## Income per person, 1995

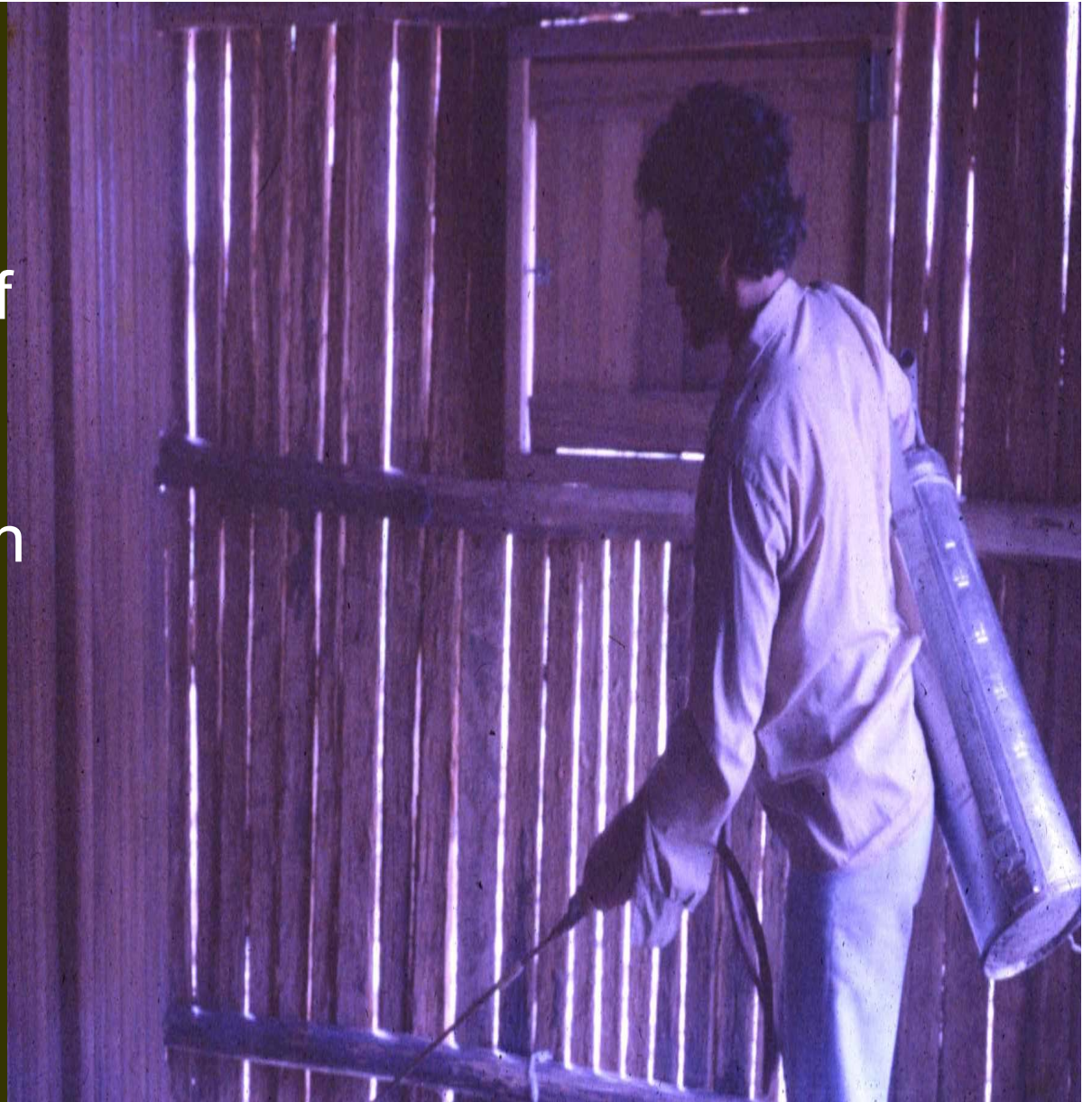


GDP PPP 1995  
\$400 - 1,000  
\$1,000 - 2,000  
\$2,000 - 3,000  
\$3,000 - 5,000  
\$5,000 - 7,700

Note: GDP PPP = 1995 Gross Domestic Product per person in purchasing power parity international dollars.

Source: World Bank (1998)

- Progress made against malaria post WW2.
- DDT main method of control – indoor spraying. Safe for environment & human health.
- Dramatic reductions in southern Africa. Programs never scaled up in high transmission, stable malarial countries.
- 1970s, eradication program scaled back.



Malaria resurges around the world after 1970s.

Reasons:

Reduction in Indoor House Spraying with DDT and other insecticides.

Increase in drug resistance.

Cheap chloroquine and sulphadoxine-pyremethamine become useless

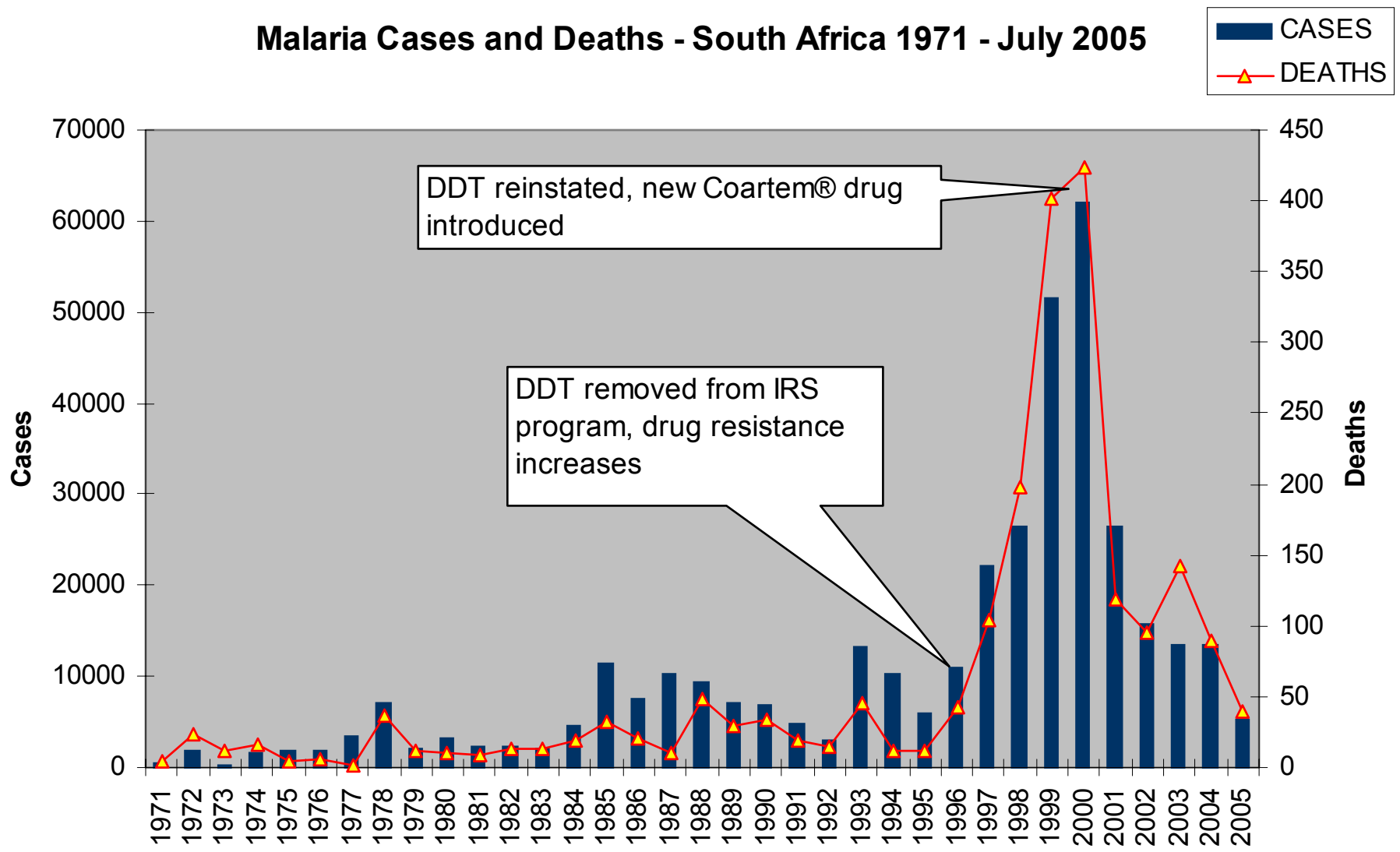
Loss of focus from WHO, UN & donor nations ... little leadership from African governments;

Population Changes, increases in density, movement of people, some environmental changes (though not climate change!)

Some countries maintain good malaria control – eg South Africa, Swaziland, Mozambique, Zambia ...

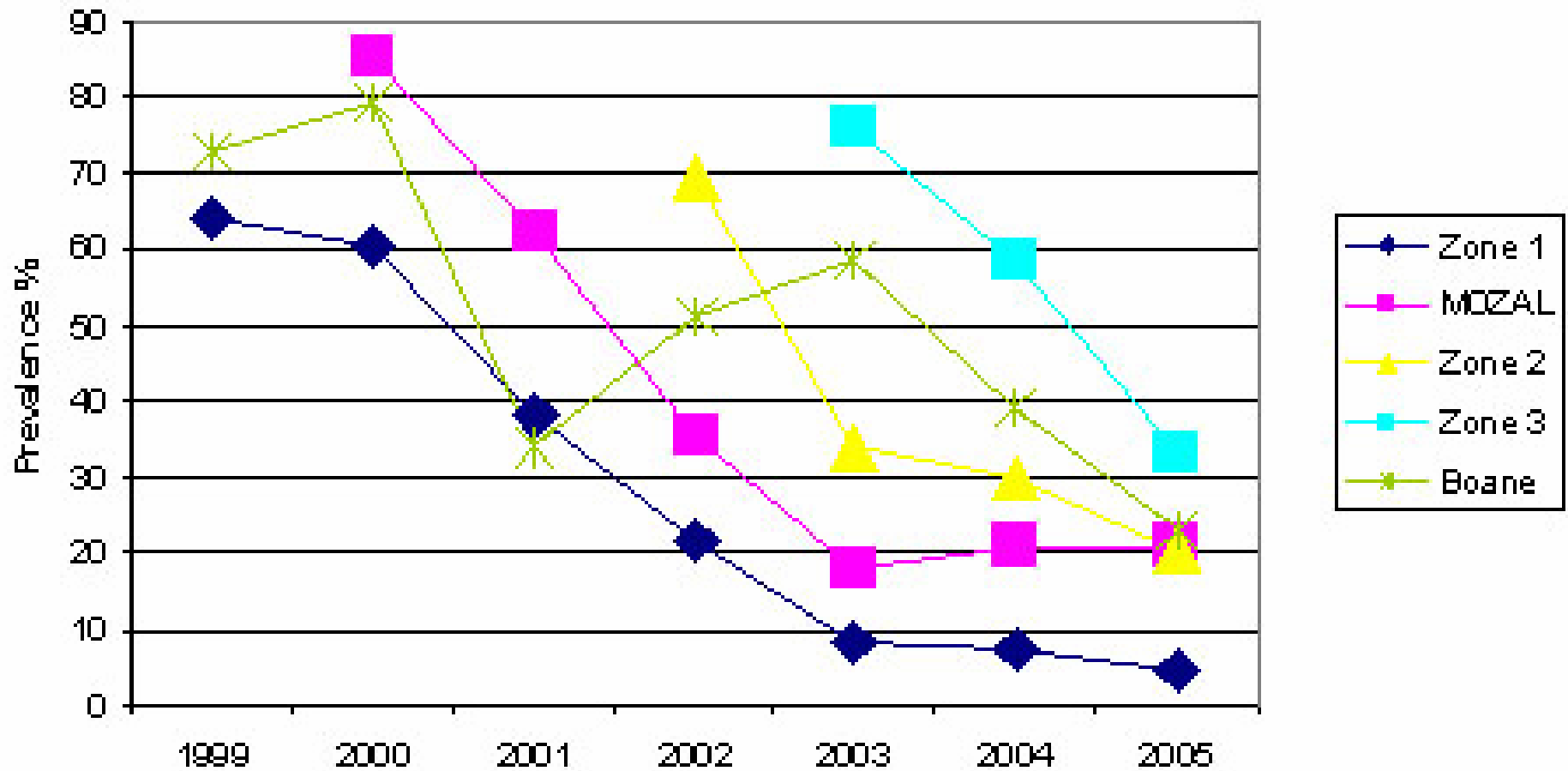


# Malaria Cases and Deaths - South Africa 1971 - July 2005



Source: SA Dept of Health

### Malaria Prevalence in Mozambique (2-<15 years)



Source: LSDI – Medical Research Council, South Africa ,  
[www.malaria.org.za](http://www.malaria.org.za)

# Elements of Success

Success in southern Africa malaria control relies on:

- Financing independent of donor agencies. Funding from GFATM, Domestic fiscus, Private Sector (KCM, BHP Billiton, Business Trust);
- Good science, monitoring, local expertise;
- New drugs & technologies (eg Coartem®, using GPS)
- Finding mix of old and new technologies appropriate for region;

# Limitations in other countries

Heavy reliance on donor agencies:

- Local scientists, malaria control programs forced to implement what donor wants – not what may make sense for local situation – IRS shunned in past;
- Poor level of debate = bias against insecticides;
- EU – Uganda problem = trade threatens malaria control, affects region;
- Inability to balance risks – costs lives.

# Some elements towards improving malaria control (and other public health problems)

Increased investment - \$1bn on AIDS, TB, Malaria, \$100bn on 'western' diseases

Public Private Partnerships – Medicines for Malaria Venture, Malaria Vaccine Initiative, Gates, need more focus on insecticide development.

Donor oversight, measurement, increased independence for public health program managers, more 'searching' less 'planning'

# What can African govts. do?

1. Live up to 15% healthcare spending promise;
2. Show political leadership – SA and SADC on malaria;
3. Remove tariffs, taxes on medicines, medical devices, insecticides.
  - SSA has high overall import tariffs for all goods;
  - Tariffs on medicines, increase prices to patient, encourage corruption, delays;

# What can African govts. do?

1. Reform healthcare bureaucracies – MCC in SA – 36 months for registration of NCE, 24 months for generic – unacceptable delays;
  2. IPR – complex debate, but learn from India, China;
  3. Recognize & encourage private healthcare & R&D sector – find profit where possible – should Africa only be worthy of charitable research?
- nb G8 calls for tariff removal and bureaucratic reforms;



Francois Maartens, MRC

# Conclusion ....

Progress is being made; more countries improving malaria control, increased funding from rich countries, more R&D being undertaken;

Need to find solutions that work – new and old technologies & measure success & failure;

US, Europe suffered from many of the same diseases – from 1850s, decline in malaria & other communicable diseases due to increased wealth;

Long term, African can only sustain improvements in healthcare, adopt new technologies with increased wealth – economic freedom leads to growth & wealth.

No quick fixes, but with right institutions, long term prospects good.

# AFRICA FIGHTING MALARIA

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