

# Malaria Situation in Angola

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**Dr. Francisco Saute, MD, MSc, PhD**  
**USAID/PMI**

# Outline

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- **Malaria Burden & Epidemiology in Angola**
  - **Statistics**
  - **Epidemiological Stratification**
  - **Trends in malaria morbidity & mortality in Angola**
  - **High Risk Groups**
  - **How and When Malaria Transmission Occurs**
- **Key Malaria Control Measures in Angola**
- **Partnership in Malaria Control in Angola**
  - **Progress to date**
- **Challenges**

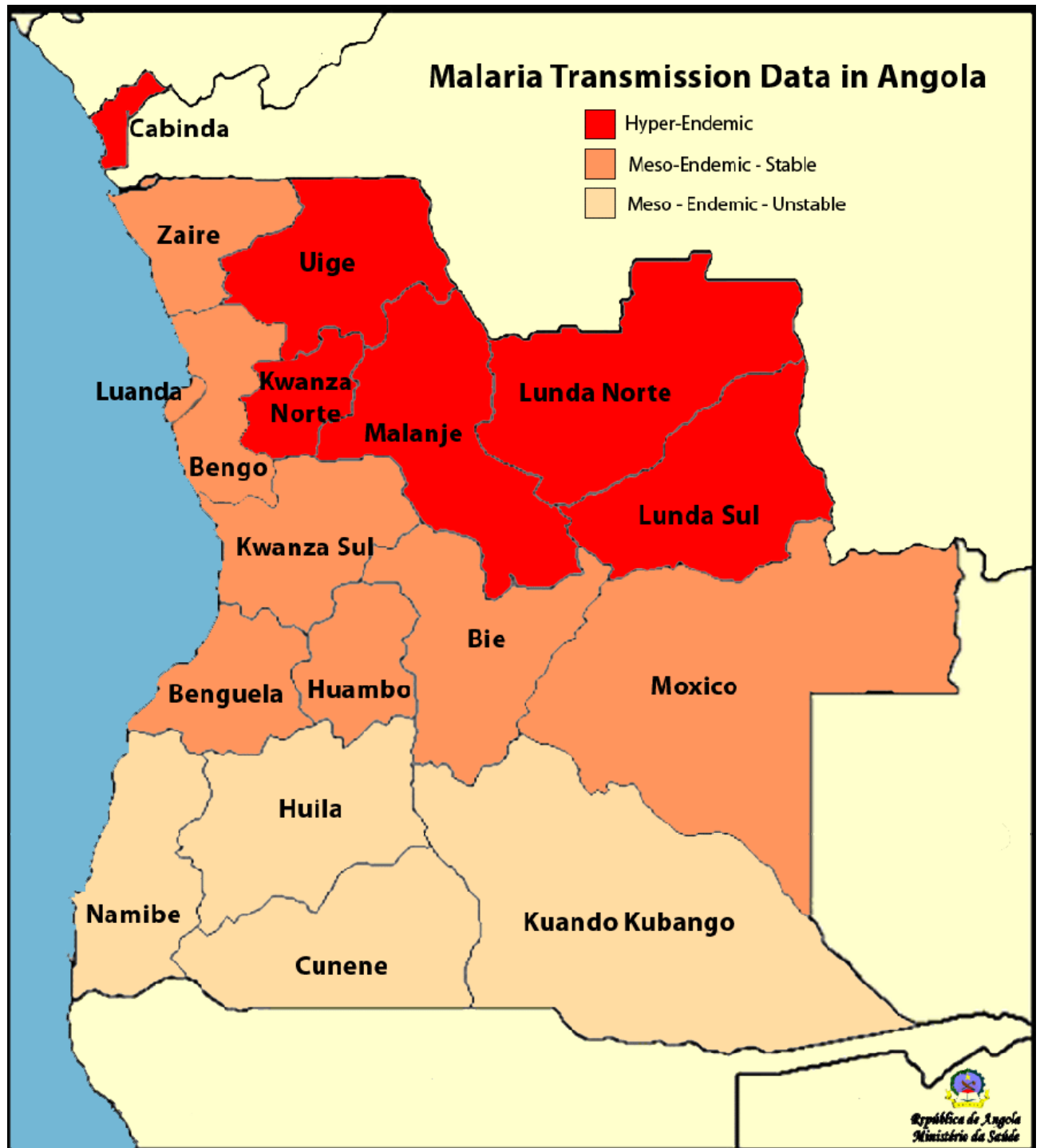
# Statistics

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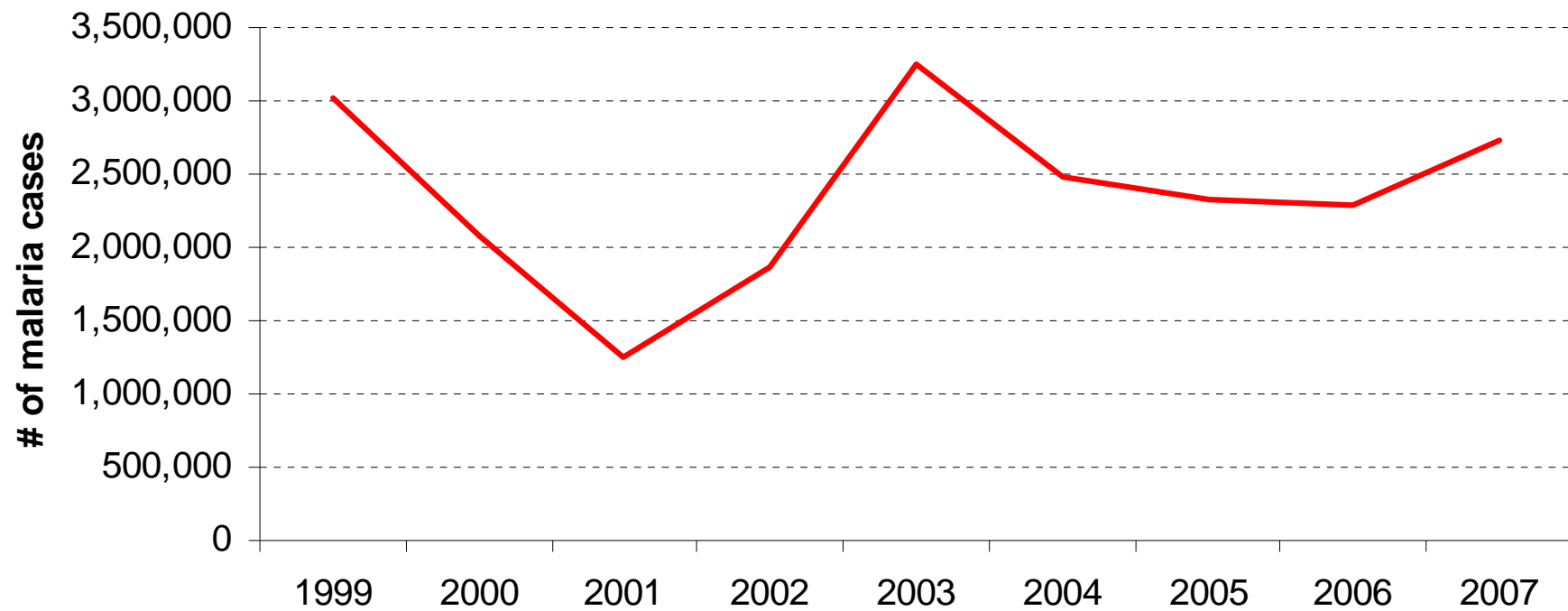
- **Malaria is the leading cause of morbidity and mortality in Angola, accounting for:**
  - 60% of under five hospital admissions
  - 35% of under five deaths
  - About 2.5 Million clinical episodes a year
  - About 10,000 deaths a year
  - First cause of under-5 deaths
  - Important indirect cause of maternal mortality (40%)
  - Case fatality rate varies between 15-30%
  - 90% of cases due to *P. falciparum*, 7%, *P. vivax*, 3% *P. malarie* and ?% *P. ovale* (*needs update*)
  - High risk groups: Children <5yrs and Preg. Women

# Epidemiological Stratification

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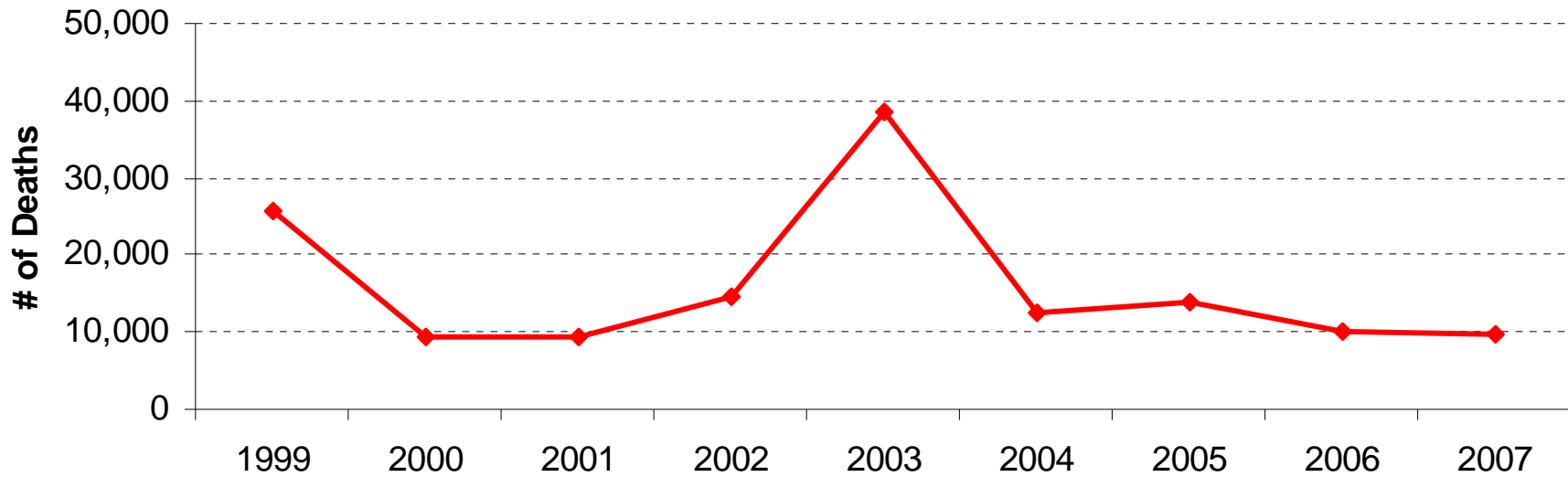
## Trends in Malaria Incidence in Angola, 1999-2007



**Source: MoH'S HMIS**

Luanda: 26 February 2009

## Trends in Malaria Related Deaths in Angola, 1999-2007



Source: MoH'S HMIS

Luanda: 26 February 2009

# High Risk Groups

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- Children Under the age o 5 years
  - Why?
- Pregnant Women
  - Why?
- PLWHA
  - Why?
- Rural Population
  - Why?

# How and When Malaria Transmission Occurs

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- All 4 malaria species transmitted through bites by female *anopheline* mosquitoes
- The wet season is associated with increased malaria transmission
- Malaria transmission occurs mainly at night
- Malaria = "*Paludismo*"



# Key Malaria Control Measures

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- Prevention:
  - Use of Insecticide-treated mosquito nets
  - Indoor Residual Spraying of homes
    - What about DDT?
  - Intermittent Preventive Treatment of malaria in pregnant women with SP
  - Chemoprophylaxis for non-immune travelers;
    - Options include: Mefloquina (Eloquine, Lariam, Mephaquin), Doxicilina (Vibramicina), Proguanil (Paludrine) and Atovaquone+proguanil (Malarone) – **Please consult your Doctor before starting any chemoprophylaxis scheme**
      - Alternatives

# Key Malaria Control Measures

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- Diagnosis
  - RDTs vs. Microscopy (gold standard)



Positive RDT



Microscope

- Treatment:
  - Uncomplicated malaria: **ACTs (Coartem® or Arsucam)**
  - Severe/complicated malaria: **Quinine**

# Major Stakeholders in Angola

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Iniciativa do Presidente dos EUA Contra a Malária



Luanda: 26 February 2009

# Main Donors

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- Government of Angola: Increasing budget for Malaria
  - In 2008: acquired 1.5 million ACTs and ~400,000 LLINs
  - New Angola/Cuba, 2-year (2009-2010) Larviciding Initiative worth ~\$120 million
- US President's Malaria Initiative: a 5-year (2006-2010) >\$83 million Initiative for Angola (\$1.2 Billion for 15 African countries)
- Global Fund for the Fight Against TB/Malaria and HIV/AIDS: a 5-year (2008 -2012) \$78 million Malaria Control Program
- ExxonMobil, yearly providing \$1 million through USAID since 2006
- Among other Initiatives and Donors

# Progress (partial data)

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- In 2008:
  - >1.9 million LLINs distributed across the country via UNICEF (several donors)
  - >745,000 People protected through IRS under PMI
  - >3 million ACT treatments distributed under PMI
  - >750,000 RDTs distributed under PMI
  - 25 Microscopes with their respective microscopy kits, under PMI
  - >1100 Health workers trained in malaria diagnosis and/or treatment under PMI and ExxonMobil
  - >240,000 p. women received their 1<sup>st</sup> dose of SP and >185,000 received their 2<sup>nd</sup>
- Coverage Indicators: awaiting the ongoing MICS results

# Monitoring & Evaluation

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- 2006/7 Malaria Indicator Survey
- 2007 Entomological survey in Luanda and South
- 2007 Health Facility Survey in Huambo
- 2007 Survey on Quality of Diagnosis
- 2008 Luanda Survey
- 2008/9 Multi-Indicator Cluster Survey (ongoing)
- Sentinel Surveillance (ongoing)
- LLIN Lifespan (planned)
- Residual Effect of the IRS' insecticides (planned)
- Mosquito Resistance to Insecticides (planned)

# Challenges

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- HMIS data still weak
  - Most reported malaria cases based on fever
  - No age or gender stratification
  - Issues on completeness, timeliness and accuracy of data
- Gap between net ownership and usage
  - Why? – misconceptions, behavioral factors, climate, etc..
- Issues on the Quality of Malaria Diagnosis
  - Example: 40% over-diagnosis and 20% under-diagnosis with microscopy
- Low training level of the majority of health personnel
- Need to improve coordination between the various departments within the MoH (IMCI, Reproductive Health, Health Promotion, INSP)
- Still weak supply chain including leakage of health products
- Malaria Control data-base

**Thank You**

**Any Questions?**