



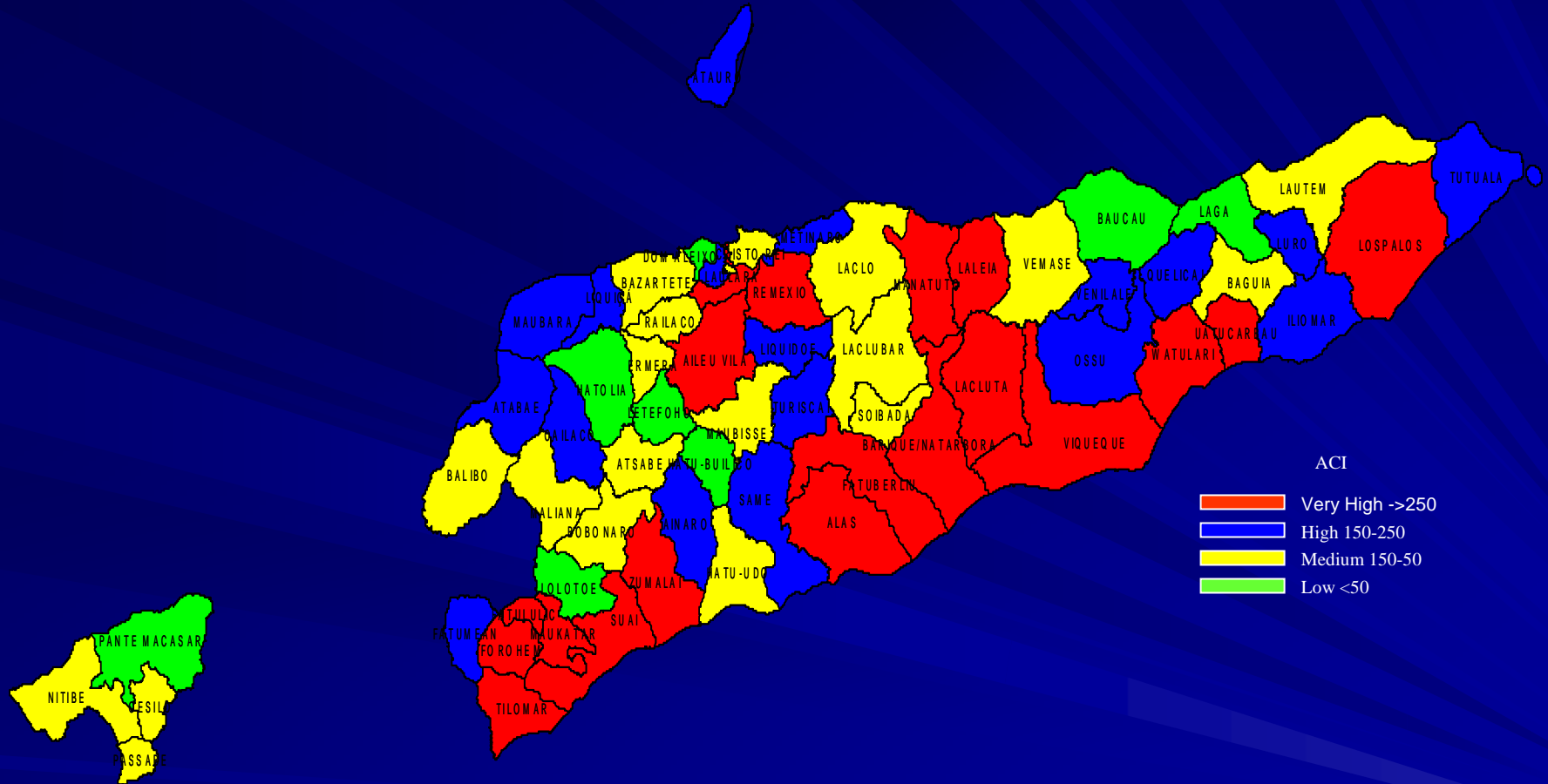
COUNTRY UP DATE

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Malaria situation in Timor Leste

- Malaria is the leading cause of morbidity and mortality in Timor Leste
- Total Population : 1, 017,187 (80% of pop. Living in Malarious areas)
- > 100, 000 clinical malaria cases/year
- 200 deaths/year
- 20-40% of all outpatients & 30% of all hospital admissions present for malaria symptoms

Map.1 Micro-Stratification of Malaria Incidence (1000 population) Based on Data 2006



- Most malaria transmission appears to be occurring in near the South coast of island.
- Twenty nine out of 65 sub-districts account for 59% of the total malaria cases in the country.

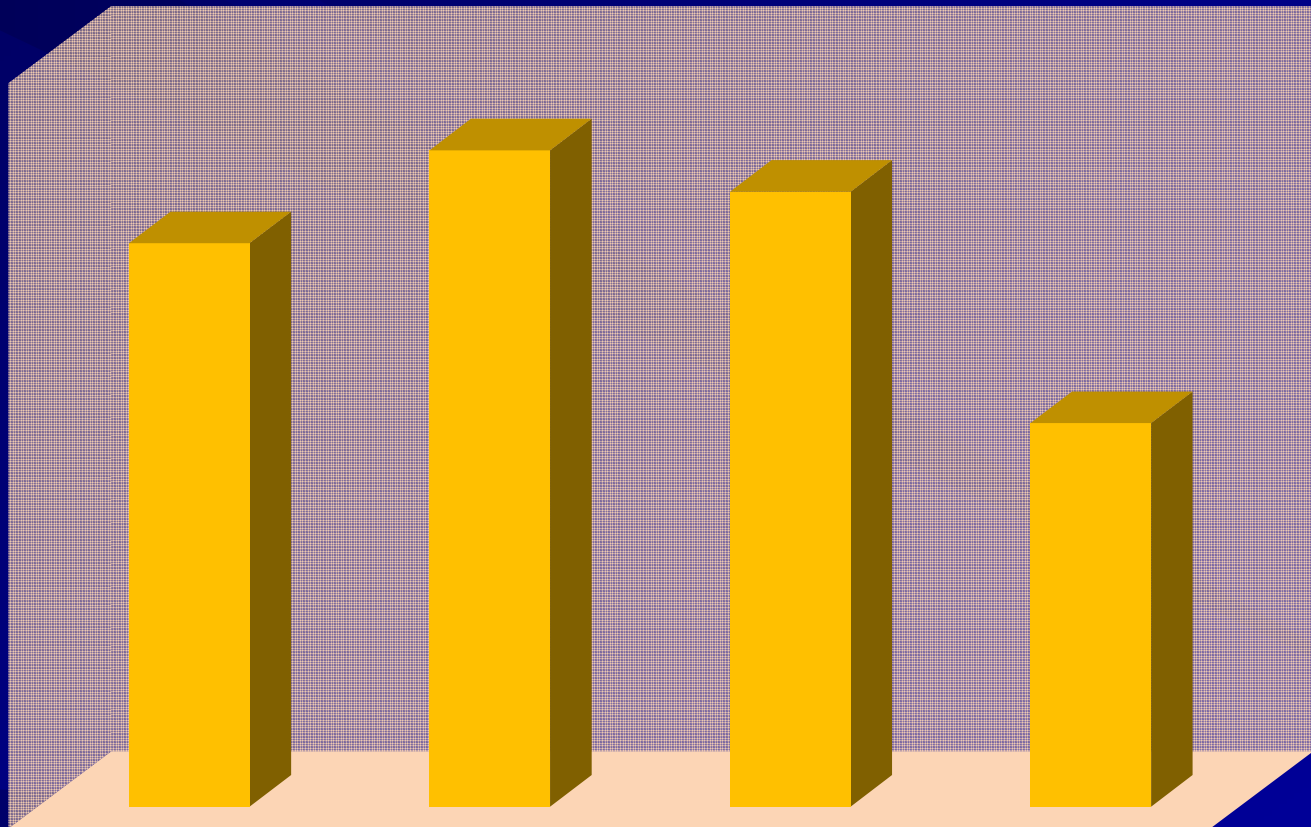
Control Strategy

■ Goal:

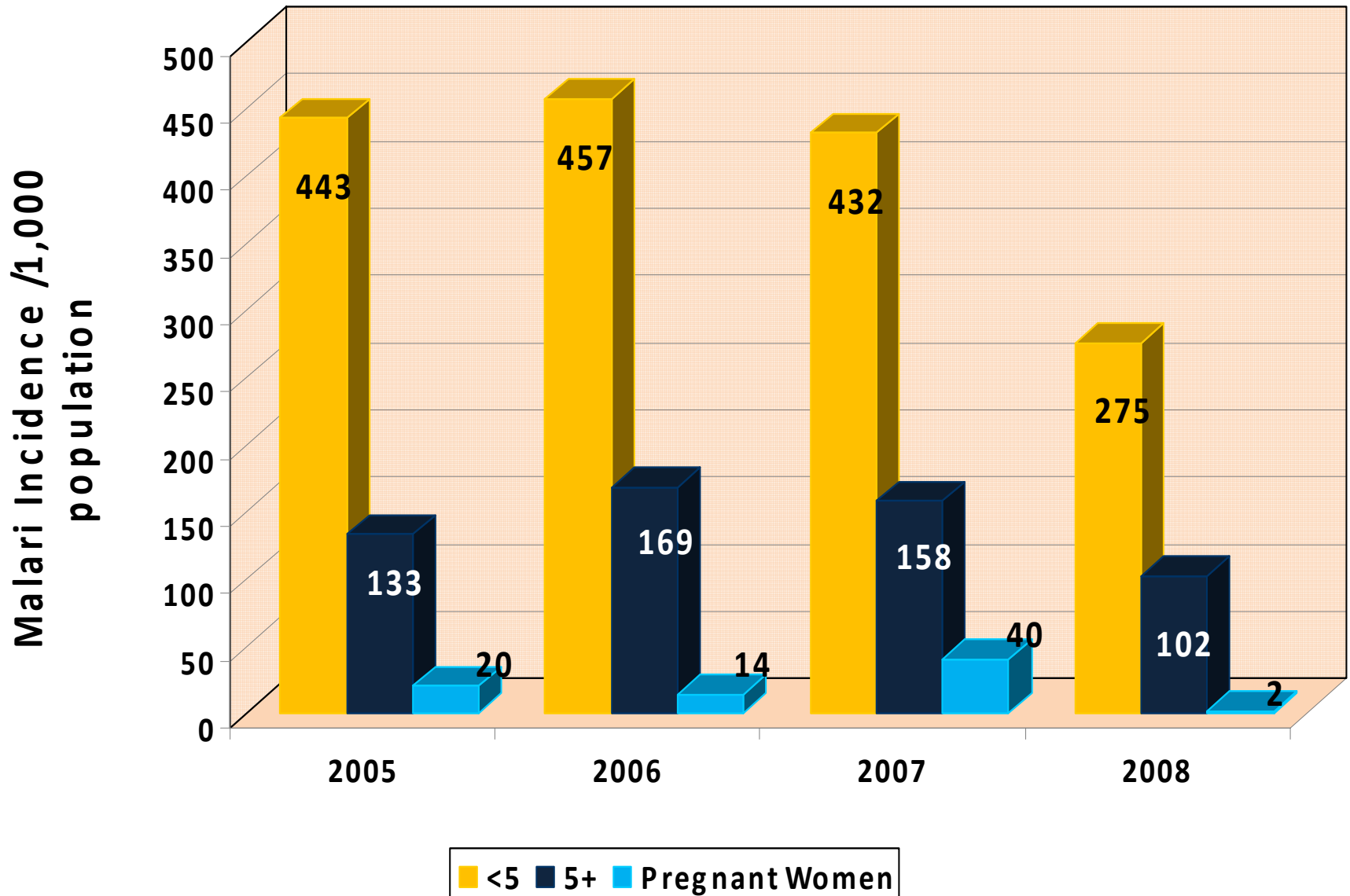
To reduce the malaria burden by 30% of the level in 2006 by 2012 and to contribute to achievement of the Millennium Development Goals

■ Existing control strategy

- **Clinical management providing effective and prompt treatment**
- **Distribution of insecticide treated bed nets to high risk group**
- **Integrated vector control**
- **Epidemic preparedness and response**



Malaria Incidence /1,000 population by Age Group, Timor Leste, 2005 - 2008



The decrease of reported malaria cases 2006-2008 :

- The change of malaria treatment for *P. falciparum* cases from SP combination to Artemether-Lumefantrine combination drug
- The introduction of Rapid Diagnostic Test kit (RDT) for diagnosis of *P. falciparum* cases
- Stratification of malaria risk areas according to sub-district
- Distribution of LL-INs to population in the malaria high risk areas

Status of Implementation

- Clinical management providing effective and prompt treatment



- New treatment protocol has been adopted → introducing ACT to treat *pf* cases.
- Use of RDT for Malaria at HFs without Microscope

Distribution of LL-ITN to high risk group

- **Mainly used vector control method in the country**
- **Total number of LL – ITN distributed 2005 - 2006:**
 - **Mass distribution to CU5 : 118, 707**
 - **PW : 15,669 Distributed trough ANC visit**
 - **Other target : 49,600 (targeting 80% of population at high endemic areas)**

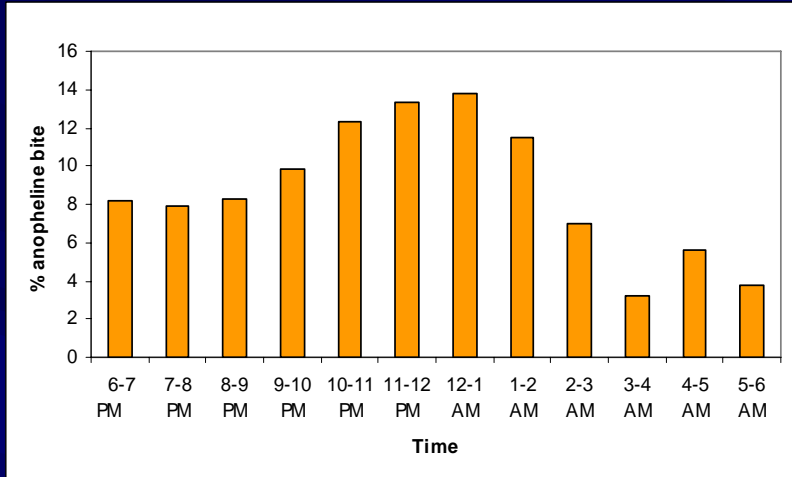
Integrated vector control → Commenced with entomological Surveillance

- Entomological laboratory established
- Number of preliminary surveys carried out in malaria high risk areas
- Develop **evidence based** appropriate vector control strategy

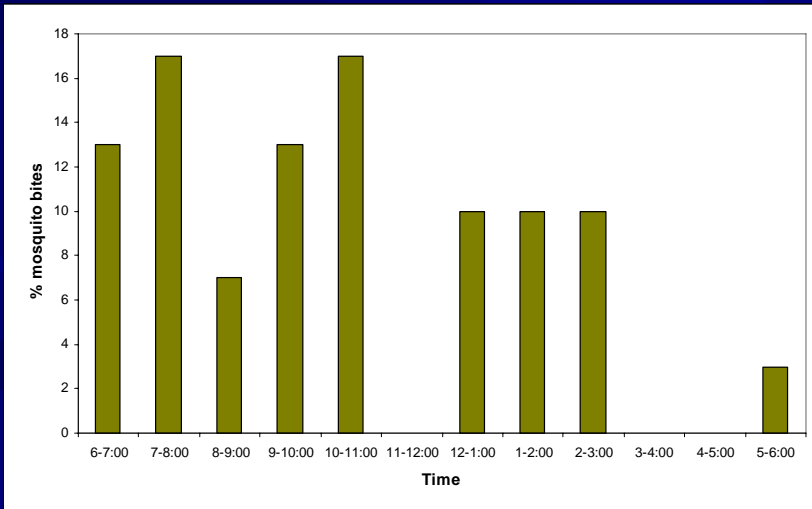
Vectors and behavior

- 10 anopheline species found in Timor Leste
- **Vectors**
 1. *An. subpictus*
 2. *An. barbirostris*
- **Biting and Resting behavior**
 - Mainly rest indoors on walls, roof and under furniture
 - Mainly bite indoors
 - Prefer human blood

Biting pattern



An. barbirostris



An subpictus

- *An. barbirostris*-
6PM-3 AM & another small peak from 4-5 AM
- *An. subpictus*-
6 -10 PM & Another peak- 12-3 AM
- Biting time of the vectors does not always correlate with the hours that persons at risk would utilize bed nets.
- Therefore nets are probably not be the most effective or only prevention method required to reduce man-vector contact .

Major constrains of malaria control programme

- Shortage of officers at National and District level for effective implementation of programme
- Poor microscopic diagnosis of malaria parasites and shortage of analysts/microscopists
- **Increased transmission due to very limited coverage of Insecticide Treated Long Lasting Nets (LLINs) in high risk malaria areas and low utility rate of distributed LLINs nets**

- **Limited or no access to Health institutions with laboratory facilities.**
- **Emergence of Sulfadoxine-pyremethamine resistance to *P. falciparum* cases**
- **Community knowledge, attitude and practice regarding malaria prevention and treatment is relatively low. (Recent KAP Survey)**

Innovative strategies Planned in the near future (2009-2011)

- Enhancing case management through early case detection and delivery of effective antimalarial therapies.
 - Improve quality of malaria Microscope diagnosis
 - Scale up the utilization of RDT in HFs without microscope
 - Community Base diagnosis and treatment

- Utilization of an integrated approach to prevent and control malaria
 - LL-INs distribution to CU5 & PW in high endemic areas → 80% targeted
 - Pilot of IRS in 2 high endemic district → 9000 houses targeted

- Integrating community involvement as a successful way to raise awareness on the prevention and management of malaria

- Enhancing components of the health system through capacity building and monitoring and evaluation.
 - Adequate staffing and capacity improvement of managerial & technical implementation of the program
 - 66 staffs will be recruited
 - 5 expert to back up program implementation

 - Guarantee the adequate infrastructure and logistical Supply to support malaria program

Funding Partner for Malaria Program In TL

- WHO → Providing technical Assistance
- USAID through BASIC/TAIS
- EC through Care International → Community outreach Activities
- Global Fund (2009 – 2014)
 - Malaria R7 total US\$ > **10,328,742 .00** (next 5 years)
 - Approved for 1st phase US\$ 6,168,687.00
- Government Budget for 2008-2009 for malaria program → US\$ 172,000.00

THANK YOU

