



Knowledge, Beliefs, and Practices Regarding Malaria Control on Atauro Island in Timor-Leste

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ABSTRACT

TITLE:
Knowledge, beliefs, and practices regarding malaria control on Atauro Island in Timor-Leste

BACKGROUND:
In South-East Asia malaria is a major public health problem accounting for 25% of global morbidity and 12% of global mortality [1]. A study conducted in 2006 found Timor-Leste to have the highest malaria mortality rate in South-East Asia [2]. The sub-district of Atauro in Timor-Leste is recognized as being one of the most remote and underserved regions in the country. According to data collected by Australian Aid International (AAI) malaria incidence is high among patients that visit their mobile health clinics [3].

OBJECTIVE:
The goal was to provide information on current knowledge, attitudes and practices related to malaria in the Atauro sub-district of Timor-Leste to help inform local malaria programs.

METHODS:
The survey was given to 139 adults from five different AAI mobile health clinics on Atauro Island in June and July of 2008. Data on malaria related knowledge, attitudes and practices was collected by questionnaires conducted in the local language of Tetum by AAI staff and results were compiled and analyzed.

RESULTS:
While the majority of people are aware that malaria is transmitted by mosquitoes and that bed nets can help prevent transmission, 32% of families do not own a bed net. Only 49% report that children five years old or younger sleep under a bed net. The survey results reveal that people are knowledgeable regarding malaria transmission and signs and symptoms of the disease, but many have false beliefs regarding other means of transmission and incorrect signs and symptoms of the disease. Furthermore, there is a lack of resources to facilitate disease prevention and treatment.

CONCLUSIONS:
There is a need for malaria education, bed net distribution and increased provision of health services on Atauro Island in Timor-Leste.



BACKGROUND

Atauro Island



- Malaria is a major public health problem in South-East Asia
- Australian Aid International mobile clinics frequently evaluate and treat locals with signs and symptoms of malaria on Atauro Island

OBJECTIVE

- Study knowledge, beliefs and practices regarding malaria on Atauro Island
- Determine success of previous education campaigns
- Gather data on how many community members have access to bed nets
- Guide future malaria-related program efforts



METHODS

- Conduct a survey of local people on Atauro Island
- Give the survey at AAI mobile health clinics (in Tetum language and frequently read aloud due to illiteracy)
- Collect information on the current malaria-related knowledge and beliefs
- Gather information on practices pertaining to malaria prevention and transmission
- Ask the local population what they think would be the most useful malaria-related programming

RESULTS



KNOWLEDGE

- The majority of those surveyed (78%) have had malaria teaching in the past
- Most (86%) of the people know that malaria is transmitted from an infected mosquito
- Many erroneously believe that malaria can be contracted by droplets spread through coughing (90%), by sharing a glass with an infected person (90%) and by exposure to cold air (72%)
- The majority of people realize that fever (94%) and abdominal pain/diarrhea (86%) are signs and symptoms of malaria
- Common signs and symptoms of Dengue Fever such as rash (85%) and body aches / joint pains (91%) are commonly confused as signs and symptoms of malaria

BELIEFS

- Most surveyed are aware they can prevent malaria transmission by applying mosquito repellent (82%), by sleeping under abed net (91%), by wearing protective clothing at sunset (81%), and by putting lids on water containers around the house (85%)
- Many incorrectly think they can decrease malaria transmission by washing their hands frequently (80%)
- When asked how the community could best be served in regards to malaria, the most popular suggestion was to distribute more bed nets; other common requests include more malaria education and more community health clinics



RESULTS

PRACTICES

- Of those surveyed, 82% say if their bed net has a hole they repair the hole
- When asked how many times people in their household have been diagnosed with malaria in the last year, 31% said one time, 38% said 2-3 times, and 19% said more than three times
- When asked if their household owned a bed net, 32% said their family did not own any, 37% owned one, 25% owned two and 6% owned three or more
- Regarding the number of bed nets being used in the household, 32% responded none, 38% responded one, 23% responded two and 5% responded three or more
- Of those surveyed, only 49% report that all children five years old or younger living in their household sleep under a bed net

LIMITATIONS

- Small sample size (N=139; 1.4% of island population)
- Survey conducted orally in Tetum language increasing likelihood of errors when recording responses as well as introducing bias from the reader
- The survey was conducted at Australian Aid International mobile health clinic and therefore was subject to selection bias

CONCLUSIONS

- Malaria remains a significant health problem on Atauro Island
- While many locals have received malaria teaching before, there are many false beliefs regarding transmission and prevention of disease
- There is a need for bed net distribution on the island
- Local people want more malaria education
- There is a request for more community health clinics



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