

## **Cambodia may hold key to malaria cure**

Written by Sebastian Strangio and Chann Chamroeun

**C**ambodia has the potential to emerge as a regional center for anti-malarial research, say scientists and traditional medicine researchers, adding that the continuing but low-level prevalence of the disease in the Kingdom gives them an ideal testing ground for new drugs and preventative measures.

“Cambodia is a good place to conduct malaria-related studies, in terms of new or conventional drugs, because we still have plenty of cases,” said Leang Rithea, head of the Health Unit at the government-funded National Malaria Research Center (NMRC).

Although a preventable disease, up to 500 million people in developing countries contract malaria each year, leading to more than a million deaths, says the Bill & Melinda Gates Foundation, a major funder of malaria research.

In Cambodia, the disease is most prevalent in the east and northeast and in the forested regions along the Thai border, which has some of the world’s most drug-resistant strains of malaria.

The NMRC, which receives funding from the WHO, aims to eventually eradicate the disease in Cambodia, through targeted research into new drugs and the creation of rural malaria containment areas – techniques which could be extended to other malaria-affected countries.

“By and large, the general trend of malaria infections has decreased based on the baseline of last year, or even three years ago,” said Rithea.

Ministry of Health figures show a sharp decline in malaria cases, from 100,943 in 2006 to 59,848 in 2007, with the rate of infection falling to 4.2

per 1,000 people, down from 7.2 a year earlier.

But Laura Martelli, resident coordinator of NOMAD RSI, a French research group working with the Bunong (Ph'nong) ethnic minority in Mondulkiri province, said the disease remains a serious problem.

"Malaria is still one of the leading causes of mortality amongst children, old people and pregnant women," said Martelli.

NOMAD is documenting the drugs traditionally used to treat and prevent malaria among the Bunong, for whom traditional medicines are often the only defense against the disease.

"We are implementing research about natural resilience [and] collecting plants that are used for malaria and fevers," she said.

Hieng Ponley, director of the National Centre for Traditional Medicine (NCTM), said the sheer variety of traditional anti-malarial treatments makes Cambodia an ideal location for new studies.

"Cambodia is a good place for doing research into anti-malarial drugs, since it has an abundance of herbs and plants used in traditional medicine," he said.

In 2006, French and Cambodian researchers at the University of Marseille tested eight species of wild plants – four for the first time – and found several that showed strong anti-plasmodial (anti-malarial) properties.

A paper published in the *Journal of Ethnopharmacology* in October 2006 said the French results were "in agreement with statements of healers on traditional uses of these plants for the treatment of malaria and/or fever."

"Poor people still use traditional medicines to treat malaria, and the rich use modern medicines," said Cheng Sunkaing, chairman of research at the University of Health and Science. "But often these drugs use ingredients from natural herbs and plants."

The NCTM is building a hospital and research facility in Phnom Penh under a plan to expand research into the properties of traditional medicinal plants, in cooperation with researchers from Vietnam, Thailand and Myanmar. The new facility is expected to be completed by November.