

(C) MISCELLANEOUS STUDIES

1. RBM project “Insecticide treatment of bed nets in collaboration with community based organizations in north-east India”

Investigators : Dr. Anil Prakash, Dr. D. R. Bhattacharyya, Dr. P. K. Mohapatra
Duration : 1^{1/2} Years (July 2003 – December 2004)
Funding : WHO (RBM initiative)

The operational feasibility of insecticide treatment of community owned nets through social marketing of synthetic pyrethroid under various geo-climatic conditions and socio-economic milieu of India was tested by National Vector Borne Diseases Control Programme (NVBDCP), India in 17 districts of the country, including 5 in NE India. The project, funded from WHO Country Budget under Roll Back Malaria initiative, envisages insecticide treatment of community owned bed nets through social marketing of synthetic pyrethroid insecticide using government health infrastructure with the help of NGOs, community based organizations and private sector as a special campaign. RMRC, Dibrugarh was entrusted the responsibility of coordinating, monitoring, financial transactions and documentation in the 5 pilot districts of 4 north-eastern states of India, namely, Karbi Anglong, Darrang (Assam), undivided Aizawl West district (Mizoram), Lower Dibang Valley & Changlang districts (taken as a single unit in Arunachal Pradesh) and West Garo Hills & Jaintia Hills (taken as a single unit in Meghalaya). The project was launched in July 2003 and each pilot district was given a target of impregnating 100,000 bednets. At the end of the project in September 2004, the achievement in various districts ranged from 9 to 60%.



Advocacy meeting in Changlang district



Advocacy Meeting in Aizawl, Mizoram

2. Multi-centric field evaluation of a flowable formulation (VCRC-PFFC of the metabolite of *Pseudomonas fluorescens* against immatures of vector mosquitoes

Investigators : Dr. Anil Prakash, Dr. D. R. Bhattacharyya, Dr. P. K. Mohapatra

A flowable formulation of *Pseudomonas fluorescens*, developed by VCRC, Pondicherry, was laboratory tested against immatures of vector mosquitoes. The formulation was relatively more effective against pupal stages (LC50s- 0.14 ppm against *An. stephensi*, 0.23 ppm against *Ae. aegypti*, 1.6 ppm against *Cx. quinquefasciatus*) than IV instar larvae (LC50s- 1.02 ppm against *An. stephensi*, 2.4 ppm against *Ae. aegypti*, 0.85 ppm against *Cx. quinquefasciatus*).

3. Outbreak investigation of suspected viral hepatitis

Investigators : Dr. A. C. Phukan, Dr. D. Biswas

An outbreak of suspected Viral Hepatitis in two villages (Tairakuri and Mohonating) under Titabor PHC of Jorhat District, Assam was investigated during May 2004. Due to continuous rain in the month of April and May, a small river passing near Mohonating village flooded the surrounding areas and there was huge water logging in Tairakuri village. Most of the families had temporary pit latrine and some families practiced open field defecation. In both the villages houses of the deceased as well as other individuals suffering from similar illness were visited and clinical history of 7 deaths (Tairakuri 3 and Mohonating 4) and 15 other individuals including members of the deceased family were recorded. Most of them has complains of fever, cough, headache, anorexia, generalized weakness, passing of high color urine and Jaundice. Blood samples were collected from 16 individuals and tested for evidence of recent HAV and HEV infection. Anti-HAV IgM antibody was detected in 2 samples and anti-HEV IgM antibody was detected in 2 samples.

Another similar outbreak of suspected Viral Hepatitis was investigated in Jorhat Engineering College, district Jorhat, Assam during February 2005. A total of 1700 people (900 students and 800 teaching and supporting staff and their families) resided in the college campus. The students were residing in 9 hostels (8 boys and 1 girls hostel). Cases were reported from all the hostels affecting 78 students (75 males and 3 females) and hostel number 7 was worst affected. It was found that students from Hostel nos. 4, 7 and 8 went for a picnic on 4th Nov. 2004 and on the way many of them took food in a roadside hotel. At the picnic spot they ate food prepared by the cooks hired from outside who used their own utensils for cooking. The first and second cases were reported from Hostel no.7 on 23rd and 24th Nov. 2004 respectively that was followed by similar cases from hostel nos. 4 and 8 subsequently. Gradually the disease was reported from other hostels including the Girl's hostel. A total of 24 students (males 18, females 6) were examined and their detailed clinical history was recorded and blood samples collected. Most of the students complained of anorexia, fatigue, yellow colored urine, jaundice, pain abdomen with enlarged and tender liver. Blood samples were tested for detection of acute Hepatitis A and Hepatitis E viruses infections where 8 samples were found positive for Hepatitis A virus infection.