

A Quarterly Update on Activities at the International Emerging Infections Program, Thailand

The big news this quarter is the appointment of Dr. Kanchit Limpakarnjanarat as the Adjunct Director of IEIP Thailand. The appointment of a Thai Adjunct Director to share leadership of the program and to strengthen collaborations with the Ministry of Public Health has been a priority since the beginning. Dr. Kanchit comes to IEIP from the HIV/AIDS program, where he served for 1 year as the Chief of Surveillance and for 11 years as the Adjunct Director. During that time he helped guide the growth of the program from 2 to more than 100 staff, with collaborations across the MOPH and in many Universities and organizations around Thailand. He is a recognized leader in epidemiology and HIV/AIDS research, with more than 60 publications and numerous awards, including one of CDC's most prestigious scientific honors, the Charles E. Shepherd award. Dr. Kanchit brings a wealth of scientific and administrative experience to IEIP at a time when rapid growth in staff and projects require it most.

## **Outbreak Response**

IEIP staff has been assisting with the global SARS outbreak since early March through on-site field assistance in Thailand (see picture, right), Laos, and Taiwan, and through technical and administrative assistance more regionally. IEIP is appreciative of the numerous staff from CDC stateside who has helped with activities related to the outbreak: Michael Basso, Michael O'Reilly, Nolan Lee, and Bill Greim.

## **Research**

The "Etiology and Serologic Diagnosis of Febrile Illness and Discriminators for Leptospirosis" project has completed its first year. The study enrolled 743 patients; 98.5% of patients returned for the follow-up convalescent visit. Testing to date revealed that 21% had acute dengue, 14% had murine typhus, 10% had spotted fever group rickettsial infection, and 6.2% had leptospirosis. Testing for bartonella and melioidosis are ongoing. The study will continue for a second year at the same sites to further characterize the diseases that contribute to fever in rural Thailand.

## **Training**

This year, IEIP helped pair 10 Thai FETP students with CDC mentors at NCID (3), EPO (3), NCHSTP (2), NIP (1), and NCCDPHP (1). The trainees spend the month of April in Atlanta attending the EIS conference and working on a research project with their mentor.

Stanford MD/PhD student Ellie Click spent February doing a rotation with IEIP. While in Bangkok, Ellie partnered with Suchada Juntasiriyakorn in the Surveillance and Investigations Branch of the Bureau of Epidemiology to review national surveillance data for reported hepatitis in preparation for IEIP's active surveillance for jaundice. Of particular interest were the data from Sakaeo province. From 1998 to 2001, the annual incidence of reported hepatitis increased from 16.9 to 22 per 100,000 persons. During the same time period, liver and bile duct cancer mortality increased from 10.2 to 29.7 per 100,000. This review, which will be published in the Thai MMWR, raises interesting questions about the etiology and true burden of



Thai nurse at Bamrad Hospital in Bangkok practicing with the reusable P100 masks.

## **Surveillance**

Active surveillance for radiologically confirmed pneumonia began in Sakaeo province in September 2002. In the first 8 months of data collection, 276 patients met the case definition, of whom 52% were male and 35% were children under 5 years. At admission, 76% were tachypneic, 44% had documented temperature  $>38.0^{\circ}$ , 49% had leukocytosis ( $WBC > 11,000$  cells/ $\mu$ l), and 6% had leukopenia ( $WBC < 4,000$  cells/ $\mu$ l). The median length of hospital stay was 5 days (range, 1 to 47), 39% received supplemental oxygen, 8% were intubated, and 8.3% died. Of all suspect pneumonia patients, 56% had a chest x-ray, and 79% of chest x-rays had definite or probable pneumonia according to the radiologists. Therefore, the minimal annual incidence of radiographically confirmed pneumonia was 143 per 100,000 persons and 639 per 100,000 children under 5.