

International Emerging Infections Program Central America and Panama (IEIP-CAP) Quarterly Newsletter

3 R D Q U A R T E R , 2 0 0 8

IEIP Opens a New Site for ViCo

IEIP has chosen the Department of Quetzaltenango for an extension of the ViCo surveillance project to a highland area of Guatemala. Quetzaltenango, or Xela as it is called locally, was chosen from among 4 highland departments, including Huehuetenango, San Marcos and Alta Verapaz. This initial list was compiled on the basis of several criteria, including, most importantly, having a high proportion of indigenous Maya and a regional referral hospital. Visits were made to all areas to gather information on the capacities of the Health Areas and hospitals in each department, as well as to determine their interest in participating. A consensus decision to select Xela was made by representatives of the Guatemalan National Center for Epidemiology and National Laboratory, subject matter experts from CDC-Atlanta and the IEIP in Guatemala. The city of Xela is the second largest in Guatemala, and the Department of Quetzaltenango has a population of 780,000 (density of 366 people per km²) and is

54% indigenous (mostly Mam and Q'eqchi'). The hospital is a 425-bed facility that treated over 1000 pneumonia patients and 600 severe diarrhea cases in 2007. Arrangements are moving forward and we expect to begin surveillance for severe respiratory, diarrheal, neurologic and febrile illnesses in February 2009.



Xela's central square.

Photo: Julián Quevedo

PFGE Equipment at the Guatemalan National Health Laboratory

On September 30, 2008, CDC joined the Guatemalan Ministry of Public Health and Social Assistance, the Pan American Health Organization (PAHO), and the Universidad del Valle de Guatemala during a commissioning ceremony for a new section of the Guatemalan National Health Laboratory dedicated to the detection of diseases transmitted by contaminated food. The new section includes pulsed-field gel electrophoresis (PFGE) testing equipment to detect and “fingerprint” the DNA of bacteria that can contaminate foods and cause diarrhea. Guatemala is the first country in Central America to acquire the equipment and reagents needed to conduct PFGE testing, valued at approximately \$80,000. Availability of PFGE technology at the national laboratories is part of a broader proposal spearheaded by the IEIP in Guatemala in collaboration with the Enteric Diseases Epidemiology Branch in CDC-Atlanta and PAHO to enhance the detection of foodborne diseases and the investigation of foodborne disease outbreaks in Central America.



Plaque commemorating the opening of the new section of the Guatemalan National Health Laboratory.

Respiratory Syncytial Virus Investigation in Nicaragua

During epidemiological week 22, the Ministry of Health of Nicaragua began to receive an increased number of reports of acute respiratory infections and pneumonias from its national surveillance system. These reports were from 7 departments throughout the country. Over half of the cases were among children less than 5 years old, approximately 60% of whom were infants less than 1 year of age. On Au-

gust 14, 2008, Dr. Wences Arvelo, IEIP epidemiologist and Gal Frenkel, IEIP surveillance fellow, joined Dr. Will Clara, influenza epidemiologist and Carlos Alonso, Field Epidemiology Training Program epidemiologist, to assist the Ministry of Health of Nicaragua. As part of the investigation, the team assisted in the collection of respiratory samples from ambulatory and hospitalized children with symptoms

consistent with PAHO definitions of influenza-like illness and severe acute respiratory infection. Reagents and supplies were provided by CDC-Central America and Panama, and the samples were tested in the National Laboratory in Nicaragua. Laboratory results suggest that the rise in respiratory cases was linked to respiratory syncytial virus.

Program Highlights & Events

Visit from Dr. Elia Gómez, Clinical Microbiology Specialist

During the month of July, Dr. Elia Gómez, Clinical Microbiology Specialist from the Ramón y Cajal University Hospital in Madrid, and Consultant for the American Society for Microbiology, worked with ViCo staff to improve the collection and processing of blood culture samples in the Cuilapa Regional Hospital in the Department of Santa Rosa. Dr. Gómez also collaborated on blood culture quality control procedures and gave general feedback to laboratory staff in the area of microbiology.



Respiratory pathogen detection group visit in September. Top: Amarilis Motta, Wences Arvelo, Lissette Reyes, Jennifer Verani, Xin Liu, Jonas Winchell, Melissa Arvay. Bottom: Jennifer Gray, Alejandra Estévez, Kim Lindblade, Laura Grajeda.

Visit from Nicole Gregoricus to Implement Norovirus Detection Techniques

Also in September, Dr. Nicole Gregoricus from the National Calicivirus Laboratory of CDC-Atlanta collaborated with IEIP-CAP laboratory staff on the implementation of a real-time PCR technique for the detection of norovirus in clinical samples from patients with diarrhea. They reviewed good laboratory practices regarding clinical sample management and determined appropriate workflow.

Rickettsia Detection Workshop

In August, Drs. Gregory Dasch and Marina Eremeeva from the Rickettsial Zoonoses Branch of CDC-Atlanta provided a training on rickettsial detection techniques, including real-time polymerase chain reaction (PCR), immunofluorescence, and ELISA. They also participated in the planning of activities for the NeTropica project to improve recognition of, and better characterize, rickettsial diseases, including Rocky Mountain spotted fever, in Guatemala and Costa Rica.

Visit from CDC Respiratory Pathogen Detection Experts

In September, a group of CDC experts specializing in respiratory pathogen detection met with IEIP-CAP laboratory staff to evaluate respiratory disease surveillance activities. They reviewed laboratory protocols, quality control procedures, and workflow in the ViCo field site.

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