

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

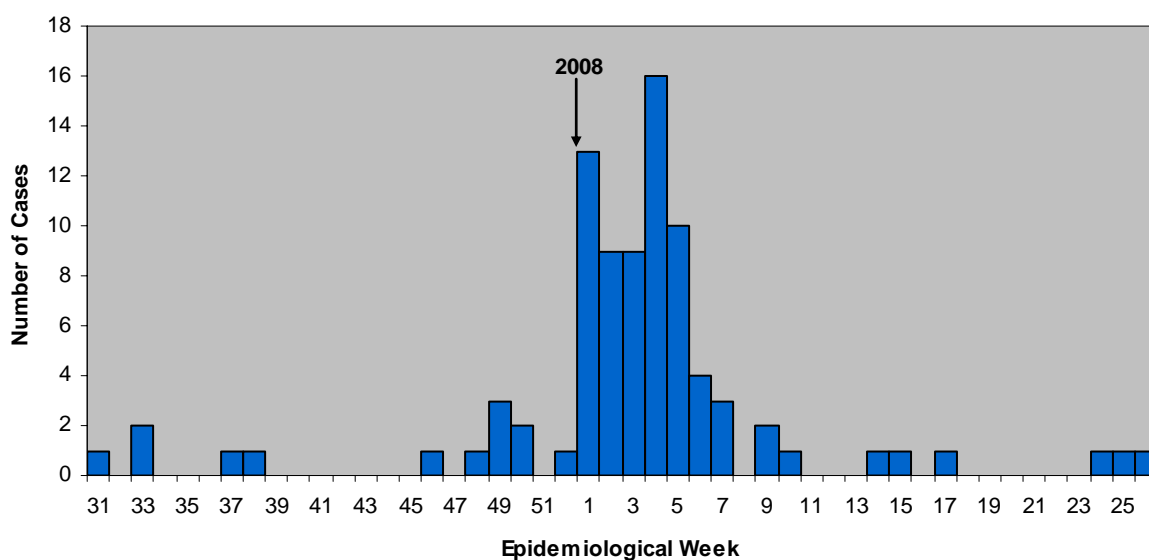
2ND QUARTER, 2008

Report From the First Year of Diarrheal Disease Surveillance in the Department of Santa Rosa

Population-based surveillance for diarrheal disease began in June 2007 at the Cuilapa Regional Hospital in the Department of Santa Rosa. One health center and two health posts were added to the system in September 2007; 11 private clinics were added in January 2008; and three additional health posts were added in February 2008. As of June 30, 2008, 1069 diarrhea cases were confirmed, 989 of which were enrolled in the surveillance system. Enteric testing showed that 23% of diarrhea

cases had a bacterial pathogen, 16% had parasites, and 14% had rotavirus. Figure 1 shows the weekly distribution of rotavirus cases during the first 12 months of surveillance. A significant rise in rotavirus cases occurred in the first 5 epidemiological weeks of 2008.

Figure 1. Number of Rotavirus Cases in the Hospital, Health Center, and Health Posts, July 2007 - June 2008 (N=86)



Oral Rehydration Therapy Study Begun in Santa Rosa

In the Department of Santa Rosa, Guatemala, the IEIP-CAP has noted that use of oral rehydration solutions for diarrheal diseases is only 11% among hospitalized children with severe diarrhea. IEIP-CAP, together with the Ministerio de Salud Publica y Asistencia Social de Guatemala and the Department of Anthropology of the Universidad del Valle, have begun a qualitative inquiry to describe provider and community knowledge and perceptions regarding use of oral rehydration therapy (ORT), as defined by all of its components: oral rehydration solutions, home replacement fluids, and continued feeding or breastfeeding during

a diarrheal illness. Many community and health care stakeholders will be involved, such as health district chiefs, political leaders, formal and informal healthcare providers, and individual members of the community. This anthropological inquiry will provide urgently needed information on ORT use in Santa Rosa and will be followed by a quantitative ORT study. The information obtained through this investigation will be used to assist in the development of public health programs to increase ORT use, particularly among children with diarrhea in Guatemala.

Salmonella Outbreak Investigation in Honduras

In February 2008, the CDC recognized an outbreak of *Salmonella* serotype Litchfield associated with cantaloupes in the United States, and the FDA traceback analysis led to an import alert on a Honduran company. From March 28–April 4, Dr. Wences Arvelo represented IEIP-CAP in a multidisciplinary team, consisting of

experts from both the FDA and CDC, to conduct an on-site evaluation of the implicated farms (<http://www.fda.gov/oc/opacom/hottopics/cantaloupe.html>). After the investigation, Dr. Arvelo met with high-level officials from the Ministry of Health in Honduras. It was concluded that the U.S. and Honduran governments have

a mutual interest in assuring food safety of Honduran exports, and IEIP-CAP will collaborate with Honduras to strengthen epidemiological and laboratory capacities in an effort to improve surveillance, detection, control, and prevention of foodborne disease outbreaks in Honduras.

Program Highlights

NeTropica Grant Awarded to IEIP-CAP for Rickettsia Surveillance in Guatemala & Costa Rica

A NeTropica grant was awarded in May to a collaborative group of investigators from IEIP-CAP and the University of Costa Rica. The project, headed by Dr. Alejandra Estevez, Chief of the IEIP-CAP Molecular Biology Laboratory, is designed to improve recognition of, and better characterize, rickettsial diseases, including Rocky Mountain Spotted Fever (RMSF), in Guatemala and Costa Rica. In Guatemala, diagnostic testing on patients suffering from acute febrile illness of unknown origin will be performed to determine if *Rickettsia rickettsii*, the etiologic agent of RMSF, or other rickettsia may be responsible for these illnesses. In Costa Rica, where the infection is known to be endemic in the provinces of Limon and Alajuela, and in Guatemala, in an area where two fatal cases were suspected to have been caused by rickettsia of the spotted fever group, field arthropod surveys on possible animal reservoirs will be conducted to identify potential vectors. This information will allow the investigators to identify the vectors responsible for infection and help establish the burden of disease in the region due to rickettsia of the spotted fever group.

IEIP-CAP Investigator Publishes Photo in the MicrobeLibrary Visual Collection

Beatriz Lopez, Chief of the IEIP-CAP Microbiology Laboratory, along with collaborator Gustavo Gini of the Department of Microbiology and Biochemistry of the Universidad del Valle de Guatemala, have published the image “Fuchsin-Stained *Campylobacter jejuni* subsp. *jejuni* Smear” in the MicrobeLibrary Visual Collection, a clearinghouse of high-quality, peer-reviewed images, animations, and videos about the microbial world for educators. The Visual Collection is one of many resources in MicrobeLibrary, an online, searchable collection of more than 2,000 peer-reviewed resources for undergraduate microbiology and biology education.

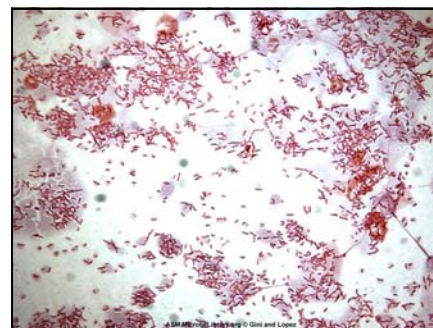


Image of *Campylobacter jejuni* published in the MicrobeLibrary Visual Collection.

Program Events

PulseNet Latin America Meeting & WHO-Global Salm-Serv Course

Dr. Wences Arvelo represented IEIP-CAP in the PulseNet Latin America meeting and the WHO-Global Salm-Surv course held in Buenos Aires from May 27–31, 2008. During the events, Dr. Arvelo met with foodborne disease epidemiologists and microbiologists from South America and Central America, as well as representatives from WHO/PAHO and CDC-Atlanta. IEIP-CAP hopes to pro-

mote improved epidemiological capacity and the use of pulse-field gel electrophoresis for the surveillance and control of foodborne disease outbreaks in Central America. IEIP-CAP will assist in the planning and organization of the first advanced-level WHO-Global Salm-Surv course in Central America, to take place in the spring of 2009.

Editorial Board:

Stacy Kopka, Kim Lindblade,
Wences Arvelo

Contact Information:

Stacy Kopka
IEIP-CAP Program Assistant
Universidad del Valle de
Guatemala
skopka@gt.cdc.gov
Tel: (+502) 2329-8471