

EID Weekly Updates:

Emerging and Reemerging Infectious Diseases, Region of the Americas

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Outbreak of Plasmodium vivax Malaria

in Palm Beach, Florida

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Outbreak of Plasmodium vivax Malaria in Palm Beach, Florida

On 25 July 2003, the first native case of malaria was reported to the Department of Health of Palm Beach, Florida. As a result, investigations undertaken have identified that a total of 7 cases of *Plasmodium vivax* malaria occurred between 12 July and 29 August 2003. All cases involved males living in Palm Beach, with an average age of 37, ranging from 17 to 45. Onset of symptoms for the first four cases occurred in July and, for the last three, in August.

Initially it was thought that a single source could be responsible of the outbreak, as the isolated *P. vivax* genotype of four of the seven patients were identical. However, with the ongoing outbreak, it seemed more probable that secondary transmission of the parasite had occurred. Anopheline mosquitoes, the malaria vector, have a short flight range (1–2 miles, approximately); but the cases were identified within a 5–8-mile area, thus strengthening the hypothesis of multiple transmission *foci*.

Adequate and timely measures have been implemented by the authorities. Epidemiological surveillance has been intensified and educational materials on prevention of mosquito bites have been distributed among the population. All precautions were taken to make health professionals and residents aware of the measures underway. More information is available at the <u>Florida Department of Health</u>, <u>Bureau of Epidemiology</u>, <u>Epi Update</u>.

Source: Florida Department of Health, Bureau of Epidemiology, Malaria Epidemiology Branch, Centers for Disease Control (CDC), USA.

Yellow Fever Situation in the Americas

As of 10 September 2003, a total of 184 cases of confirmed jungle yellow fever have been reported to the Pan American Health Organization, with 85 deaths. This represents the highest number of cases reported in the Region since 1999.

Table 1: Jungle Yellow Fever, Reported Cases and Deaths (by country, Region of the Americas, as of 10 September 2003)

Country	Cases	Deaths
Bolivia	6	4
Brazil	62	23
Colombia	88	40
Peru	15	9
Venezuela	13	9
Total	184	85
Source: Reports to PAHO by the Ministries of Health of the respective countries.		

The outbreak on the Colombian-Venezuelan border, which started in early June 2003, has moved northward. Four cases were identified during Epidemiological Weeks (EW) 33 and 34 (ending on 16 and 23 August, respectively) in the counties of Agustin Codazzi, Becerril and La Jagua de Ibirico, in the Department of Cesar, northeast region of Colombia. These counties are located across the border from the counties of Machiques and Rosario de Perija, in the State of Zulia in Venezuela, which have also reported cases during EW 31 and 32 (ending on 2 and 9 August, respectively).

The urban areas close to the outbreak are infested with *Aedes aegypti*, highlighting the risk of a possible re-urbanization of the disease in the Americas. An active search for febrile-icteric and febrile-icterohemorrhagic cases is being conducted in all affected Departments. The objective is early detection of YF virus circulation, which will make timely implementation of outbreak-control measures possible. In addition, intensive mass-vaccination efforts are underway, aimed at immunizing all residents in the States of Norte Santander and Cesar, in Colombia, as well as the States of Zulia and Tachira in Venezuela. Public-health authorities from both countries have developed joint border activities to cope with the outbreak and to overcome the difficulties of vaccinating areas with displaced populations and guerrilla activity.

To prevent the occurrence of jungle yellow fever outbreaks and the re-urbanization of the disease in the Americas, enzootic countries should implement all the <u>recommendations</u> of the PAHO Technical Advisory Group on Vaccine Preventable Diseases.(TAG).

Source: Ministries of Health of Bolivia, Brazil, Colombia, Peru and Venezuela.

West Nile Virus (WNV): Current Situation in the Americas

United States: As of 11 September, 37 states have reported human cases of WNV. The cumulative total is 3,307 cases and 64 deaths. This represents a 2.8-fold increase in the number of cases and a 1.5-fold increase in the number of deaths when compared to the same period in 2002. The states with the highest number of cases are Colorado (1,214), South Dakota (521), Nebraska (436), Wyoming (243), and Texas (190). Viral circulation activity has been detected in horses and birds in nine other states. *Sources:* CDC West Nile Virus website and Morbidity and Mortality Weekly Report (MMWR).

Canada: As of 11 September, the total cumulative number of confirmed cases is 24 and the total cumulative number of probable cases is 279, occurring in 5 states. The number of laboratory-confirmed cases has increased 7-fold when compared to the same period in 2002. As of September 11, no deaths have been reported. *Source:* Health Canada, West Nile Virus Surveillance Information.

Mexico: For 2003, 35 WNV infections have been identified in wild birds; and 642, in horses. Viral circulation has been detected in 12 states (Tabasco, Quintana Roo, Nuevo León, Chiapas, Tamaulipas, Coahuilla, Yucatán, Veracruz, Chihuahua, San Luís of Potosí, Guerrero, and Federal District). Furthermore, 573 clinically suspect human cases have been studied and all results have been negative. Source:

National Center of Epidemiological Surveillance (Mexico, Centro Nacional de Vigilancia Epidemiológica / CENAVE) website.

Additional Note: Besides the United States, Canada, and Mexico, native circulation of WNV activity has been detected in El Salvador (in horses, 2003), the Dominican Republic and Jamaica (in birds, 2002–2003), and in Guadeloupe (horses and birds, 2002–2003).

PAHO, in collaboration with the CDC, is carrying out training workshops to diagnose and monitor WNV activity. These customized workshops are aimed at laboratory technicians, epidemiologists, veterinarians, and entomologists from Latin American countries. The next workshop, directed at the countries of the Southern Cone and the Andean Region, will be held in November 2003 in Argentina.

Sources

- Emerging Infectious Diseases, 2003 9 (7): 860-863.
- Science Now, March 2003.
- Direction générale de la Santé, Point presse "Dossier d'actualité in sécurité sanitaire", 26 mai 2003..