

Dengue Fever Reemerges in Florida After 75 Years

BY ROXANNA GUILFORD-BLAKE

FROM THE 2010 INTERNATIONAL CONFERENCE ON EMERGING INFECTIOUS DISEASES

ATLANTA — An estimated 5% of the Key West, Fla., population—more than 1,000 people—showed evidence of recent exposure to dengue virus in 2009, according to the Centers for Disease Control and Prevention and the Florida Department of Health.

Dengue is the most common mosquito-transmitted virus and causes 25,000 deaths each year, according to the CDC. From 1946 to 1980, no cases of dengue acquired in the continental United States were reported, and there has not been an outbreak in Florida since 1934.



These cases represent the reemergence of dengue fever in Florida (and elsewhere in the United States) after 75 years, Dr. Harold Margolis, chief of the dengue branch at CDC, said at the conference.

After three locally-acquired cases of dengue fever were initially reported in 2009, scientists from the CDC and the Florida Department of Health conducted a study to estimate the potential exposure of the Key West population to dengue virus.

Since 1980, a few locally acquired U.S. cases have been confirmed along the Texas-Mexico border, which coin-

cided with large outbreaks in neighboring Mexican cities. In recent years, there has been an increase in epidemic dengue in the tropics and subtropics, including in Puerto Rico, the CDC reported. On Sept. 1, 2009, a New York state physician notified the Monroe County (Fla.) Health Department and FDH of a suspected dengue case in a New York state resident whose only recent travel had been to Key West. In the next 2 weeks, two dengue infections in Key West residents without recent travel were confirmed. By the end of 2009, 27 cases had been identified.

Evidence of dengue or its antibodies was detected in 4.95% of 240 blood samples in Key West.

DR. MARGOLIS

Among the samples, 4.95% had dengue active in their systems or had dengue antibodies. The strain was similar to strains from Mexico, according to study investigator, Glen Gallagher, of the CDC's dengue branch in Puerto Rico.

The take-away for physicians is that dengue fever can be a potential diagnosis even in patients without a history of travel, he said in an interview.

The CDC and the FDH continue to monitor cases in and around Key West. As of the end of June 2010, there had been 12 additional cases of locally-acquired dengue



The dengue virus, transmitted by the *Aedes aegypti* mosquito, causes 25,000 deaths annually.

infections, bringing the total to 39.

Disclosures: Mr. Gallagher reported that he had no conflicts.

New York Mumps Outbreak Tests Third MMR Dose

BY ROXANNA GUILFORD-BLAKE

FROM THE 2010 INTERNATIONAL CONFERENCE ON EMERGING INFECTIOUS DISEASES

ATLANTA — An intervention to administer a third dose of the MMR vaccine during a mumps outbreak appears to have slowed transmission of the virus, but more data are needed before such a strategy can be recommended, preliminary findings suggest.

For 2 months beginning in January 2010, public health officials offered a third dose of the measles-mumps-rubella (MMR) vaccine in three schools in Orange County, N.Y., where, despite a high level of two-dose coverage among students, viral transmis-



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DR. OGBUANU

sion had continued for more than 2 months, said Dr. Ikechukwu Ogbuanu of the Centers for Disease Control and Prevention.

The Northeastern outbreak—the largest in the United States since 2006—began in June 2009 and was traced to a fully vaccinated 11-year-old Hasidic boy from Orange County, N.Y., who had recently returned from the United Kingdom. He subsequently spent time at summer camp and then traveled to Brooklyn.

From June 17, 2009 to May 7, 2010, a total of 3,341 outbreak-related mumps cases were reported from four sites in the New York and New Jersey area, predominantly among members of Jewish communities. Multiple factors might have fueled the outbreak in this community, including high population density and prolonged exposure, Dr. Ogbuanu said.

For their study, the researchers focused on records from the three Orange County schools where most of the cases occurred and conducted a survey of 6th-12th graders to assess risk factors related to mumps viral transmissions.

In those three schools, a third dose of MMR vaccine had been offered to eligible 6th-12th graders between Jan. 19 and Feb. 2, 2010; uptake occurred among 83% (1,863 of the 2,255) of those eligible.

"Preliminary data suggest a positive benefit," Dr. Ogbuanu said. As of June 2010, of the 108 cases of mumps reported after the intervention, only four of the patients had received the third dose.

Dr. Ogbuanu, however, was adamant about not offering recommendations. The efficacy of a third MMR dose in controlling mumps outbreaks has not been previously reported and, he emphasized, researchers are still assessing the impact of this intervention.

The only adverse effects reported were pain, redness, and swelling at the injection site; there were no life-threatening adverse reactions.

Disclosures: Dr. Ogbuanu reported having no conflicts of interest.

Kyrgyzstan Polio Threat Complicated by Ethnic Strife

BY JENNIE SMITH

FROM THE 2010 INTERNATIONAL CONFERENCE ON EMERGING INFECTIOUS DISEASES

The World Health Organization began a campaign in July to inoculate children in war-torn southern Kyrgyzstan against the type-1 poliovirus that has infected a confirmed 413 people in neighboring Tajikistan.

However, dissimilarly from Tajikistan, where strong public response to the well-coordinated vaccination campaigns has resulted in more than 90% vaccine uptake among targeted groups, the ongoing violence and displacement will make the job in Kyrgyzstan extremely difficult, Dr. Mark Witschi, a medical officer at WHO's office in Bishkek, Kyrgyzstan, said in an interview.

An estimated 670,000 Kyrgyz children aged 5 years and younger are estimated to be in urgent need of polio vaccine, and UNICEF has already provided two rounds of vaccine per child. "In the south, there are whole communities in hiding," according to Dr. Witschi, referring to the ethnic Uzbeks who have borne the brunt of the violence that began in April—around the same time, coincidentally, that polio was detected in Tajikistan.

The United Nations estimated in June 2010 that 400,000 people had become homeless as a result of the southern Kyrgyzstan violence. Many victims have crossed the border into

Uzbekistan, seeking refuge, only to be forcibly returned to Kyrgyzstan.

Now, mobile vaccination teams will have to go from house to house to find these families and inoculate their children. "We don't know how [this campaign] will turn out," Dr. Witschi said, "and we need to do some close monitoring."

The threat of a polio outbreak in Kyrgyzstan comes not just from Tajikistan, where the most recent case was reported June 6 and which may already have successfully stopped the outbreak. WHO officials suspect that there have been unreported polio cases in Uzbekistan.

"The fact that Uzbekistan is planning a third and fourth round [of vaccinations] tells us indirectly that they have cases, and we know that they have never reported a case," Dr. Witschi said. "It would be very strange if they would really have had no cases."

The first round of polio vaccinations in Kyrgyzstan will be completed by the end of July; the second round is scheduled to be implemented in late August. The World Health Organization said on its Web site that storage facilities in Kyrgyzstan are functioning, with vaccines stored properly and the cold chain intact.

Dr. Witschi reported that so far, of 26 recent cases of acute flaccid paralysis reported in Kyrgyzstan, none has tested positive for wild polio-virus.