

New York Mumps Outbreak Spurs Diligence

BY DIANA MAHONEY

A mumps outbreak that began in New York in June and led to 1,521 reported cases of the disease as of Jan. 29, 2010, has prompted the Centers for Disease Control and Prevention to remind public health officials to be diligent in their surveillance and reporting and to be mindful that maintaining high measles, mumps, and rubella vaccination

coverage remains the most effective way to prevent outbreaks and limit their size when they do occur.

In the Feb. 12 Morbidity and Mortality Weekly Report, the CDC describes the mumps outbreak, which began in a New York summer camp for tradition-observant Jewish boys and has spread substantially among members of tradition-observant Jewish communities in New York City, New Jersey, and two

counties in upstate New York. The majority of the affected patients have been boys older than 6 years (median age, 15 years, among those whose age is known). To date, there have been 65 reports of mumps-related complications, 19 mumps-related hospitalizations, and no deaths, according to the report (MMWR 2010;59:125-9).

An assessment of MMR vaccination status, which was known in 1,115 of the

cases, showed that 976 patients had received at least one dose before the outbreak and 839 had received two doses. This finding emphasizes the fact that mumps outbreaks can occur in highly vaccinated populations, which is likely attributable, in part, to the fact that the effectiveness of the mumps component of the MMR vaccine is lower than that of the measles and rubella components, according to an editorial note in the report. For this reason, public health officials in Orange County, N.Y., where transmission continued among students in three religious schools, despite high two-dose coverage, began offering a third MMR dose to students in the schools.

To date, “no data exist on the effectiveness of a third dose in either reducing the risk for mumps or altering the course of an outbreak,” nor has the CDC’s Advisory Committee on Immu-

While maintaining high MMR vaccination coverage doesn’t prevent all mumps outbreaks, it remains the most effective preventive measure available.

nization Practices recommended a third dose, the authors stated. However, they noted, “a previous study indicated that a third dose of MMR vaccine for seronegative college students resulted in rapid seroconversion with a low rate of IgM response, which is indicative of an anamnestic immune response” (*J. Infect. Dis.* 2008;197:1662-8).

The authors hypothesized that the settings in which the outbreaks occurred—predominantly all-boys’ schools where students spend long periods in large study halls and are often face to face with a study partner—and the relatively large household sizes of the affected community might be facilitating transmission within the community and limiting transmission outside it. They stress, however, that “the high vaccination coverage in the affected community likely is limiting the size of the outbreak.”

Additionally, high vaccination coverage outside the community might explain why the few cases that have occurred outside the community have not led to new outbreaks, the authors wrote.

While maintaining high MMR vaccination coverage doesn’t prevent all mumps outbreaks, it remains the most effective preventive measure available, thus timely vaccination with two doses should be encouraged, according to the report.

The authors also advocated a high degree of awareness among health care providers that mumps can occur in areas of high vaccination coverage. Providers are urged to promptly report cases of mumps and isolate individuals with suspected or confirmed disease for 5 days after onset. ■