Enhanced Pediatric Influenza Surveillance

In response to the novel H1N1 outbreak in the Spring of 2009, the Southern Nevada Health District (SNHD) created the Enhanced Pediatric Influenza Surveillance (EPIS) project in June 2009. The EPIS project is supported by staff from the Office of Epidemiology (OOE) and the Southern Nevada Public Health Laboratory (SNPHL) and four pediatric clinics in Las Vegas.

The goal of EPIS is to monitor what type of influenza viruses are circulating in the community. Each week, the four pediatric sentinel sites in Las Vegas submit nasal swabs (maximum of 10 swabs per site each week) to SNPHL for testing. To be eligible for testing, a patient must have a temperature of >100° F and a cough or sore throat and be less than 19 years of age.

Submitted specimens that meet criteria are tested for influenza A, influenza B, and novel influenza A H1N1 (formerly swine flu) by SNPHL on a bi-weekly schedule. An influenza test result that is inconclusive or unsubtypeable may be sent to the Centers for Disease Control and Prevention (CDC) for further testing.

Data collected from sentinel sites and SNPHL are analyzed by the OOE. Reports will be provided on a monthly and yearly basis.

Results

During June-July, 2009, 172 samples were submitted to SNPHL for testing. Of those submitted, 48% (83) were positive for novel influenza A H1N1, 49% (85) were negative for influenza A and B, two samples were rejected, and two samples were inconclusive upon testing (Chart 1). None of the specimens tested was positive for seasonal influenza (influenza A and B). The average age for specimens submitted was 6.1 years and the average age for an influenza positive specimen was 6.6 years.

Geographically, EPIS has one sentinel site located in the southeast region of Las Vegas, one location in the northeast, and two locations in Henderson. Henderson site #1 contributed 75 (43.6%) specimens for June, Henderson site #2 contributed 24 (14.0%) specimens, Northeast site #1 contributed 52 (30.2%) specimens,
and Southeast site #1 contributed 21 (12.2%) specimens. Henderson site #1 had 39 (47.0%) positive novel influenza A H1N1 tests, Henderson site #2 had 9 (10.8%), Northeast site #1 had 27 (32.5%), and Southeast site #1 had 8 (9.6%) (Chart 2).

The highest number of specimen submissions occurred in week 23 with 30 (17.4%) specimens and the lowest number of submissions occurred during the last week of July, week 26, with 11 (6.4%) specimens submitted. Likewise the week with the highest number of novel H1N1 occurred during week 23 with 17 (20.5%) positives and week 26 with the lowest number of positives (2, 2.4%) (Chart 3).

For more information about influenza or the EPIS program please call the Office of Epidemiology, Monday-Friday, 8-4:30 pm at 702-759-1300 option#2.