



New Viral Respiratory Disease Surveillance

September 9, 2010

The Southern Nevada Health District (SNHD) has started publishing weekly reports from the Pediatric Early Warning Sentinel Surveillance (PEWSS), an innovative program initiated in June 2010 to monitor the level of respiratory virus activity within the community year round.

The PEWSS program will provide laboratory surveillance data for four influenza viruses (Influenza AH1, Influenza 2009 A (H1N1), Influenza AH3, and Influenza B), and six additional non-influenza viruses (Adenovirus, Human metapneumovirus, Human parainfluenza virus 1, Human parainfluenza 2, Human parainfluenza virus 3, and Respiratory Syncytial Virus).

Four pediatric practices are participating as program sentinel sites for collection of samples from children who present with a fever $>100^{\circ}\text{F}$ accompanied by a cough and/or sore throat. Samples tested by the Southern Nevada Public Health Laboratory (SNPHL) and laboratory results are compiled, analyzed and reported back to the community by the SNHD Office of Epidemiology. Since sample collection and testing will be performed continuously, the reports will provide weekly snapshots of the respiratory viruses circulating in the community throughout the year. Knowledge of the viral activity in the community may aid clinicians in assessing the treatment options for their patients. This surveillance program will also allow for detection of novel influenza virus strains and early recognition of seasonal emergence of respiratory pathogens.

PEWSS reports (attached) will be disseminated weekly to the medical community by fax and online at www.southernnevadahealthdistrict.org, and will include a summary of the respiratory virus trends observed in the community with the following three tables and figures. Table 1 shows testing results for the current week and for the previous four weeks. Multiple test organisms isolated from the same specimen are listed as co-infections, and the numbers of specimens tested weekly since the start of the project are also enumerated. Figure 1 shows the number of specimens tested per week with a maximum of 40 specimens. Lower levels of tests performed indicate that there are less respiratory illnesses detected in the community, because sentinel sites are encountering fewer patients who meet the illness testing criteria and can provide specimens for testing. The trends for each respiratory disease will be shown as the positive rates for organisms tested weekly during the surveillance season in Figure 2. As more test results are reported, these graphs will elucidate the respiratory disease trends in our community over time.

For questions about the PEWSS system, please contact the Office of Epidemiology at (702) 759-1300.

SNHD Pediatric Early Warning Surveillance System (PEWSS) Report: September 08, 2010

All Reporting Sites, Through the Week Ending September 04, 2010

General Update

The Pediatric Early Warning Sentinel Surveillance (PEWSS) has detected Influenza 2009 A (H1N1) and Influenza B in Southern Nevada for the week ending September 4, 2010. Each virus was isolated once, and from different patient specimens.

Currently, PEWSS has detected low levels of activity in all ten monitored respiratory viruses in southern Nevada.

Table 1 - Testing Results, Current Week and Previous Four Weeks

Testing Results	Week Ending										Project to Date	
	8/7		8/14		8/21		8/28		9/4		Since 6/1/10	
	n	%	n	%	n	%	n	%	n	%	n	%
All negative	9	100	8	67	3	100	6	60	7	88	96	64
Influenza A Positive*	0	0	0	0	0	0	1	10	0	0	1	1
Influenza A 2009 H1N1	0	0	0	0	0	0	1	10	0	0	1	1
Influenza A H1 Positive	0	0	0	0	0	0	0	0	0	0	0	0
Influenza A H3 Positive	0	0	0	0	0	0	0	0	0	0	0	0
Influenza B Positive	0	0	0	0	0	0	1	10	0	0	1	1
Adenovirus Positive	0	0	2	17	0	0	0	0	0	0	11	7
Human Metapneumovirus Positive	0	0	0	0	0	0	0	0	0	0	1	1
Parainfluenza 1 Positive	0	0	1	8	0	0	1	10	0	0	7	5
Parainfluenza 2 Positive	0	0	0	0	0	0	0	0	1	13	3	2
Parainfluenza 3 Positive	0	0	1	8	0	0	1	10	0	0	31	21
RSV Positive	0	0	0	0	0	0	0	0	0	0	2	1
Coinfections	0	0	0	0	0	0	0	0	0	0	2	1
Specimens Tested	9		12		3		10		8		151	

* Includes Influenza of all subtypes

Figure 1 - Weekly Number of Specimens Tested

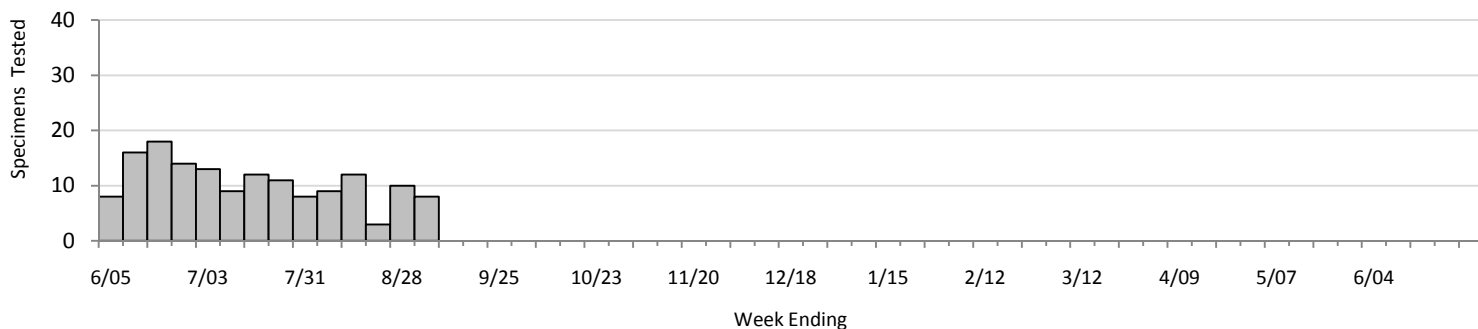


Figure 2 - Weekly Positivity Rates for Organisms Tested

