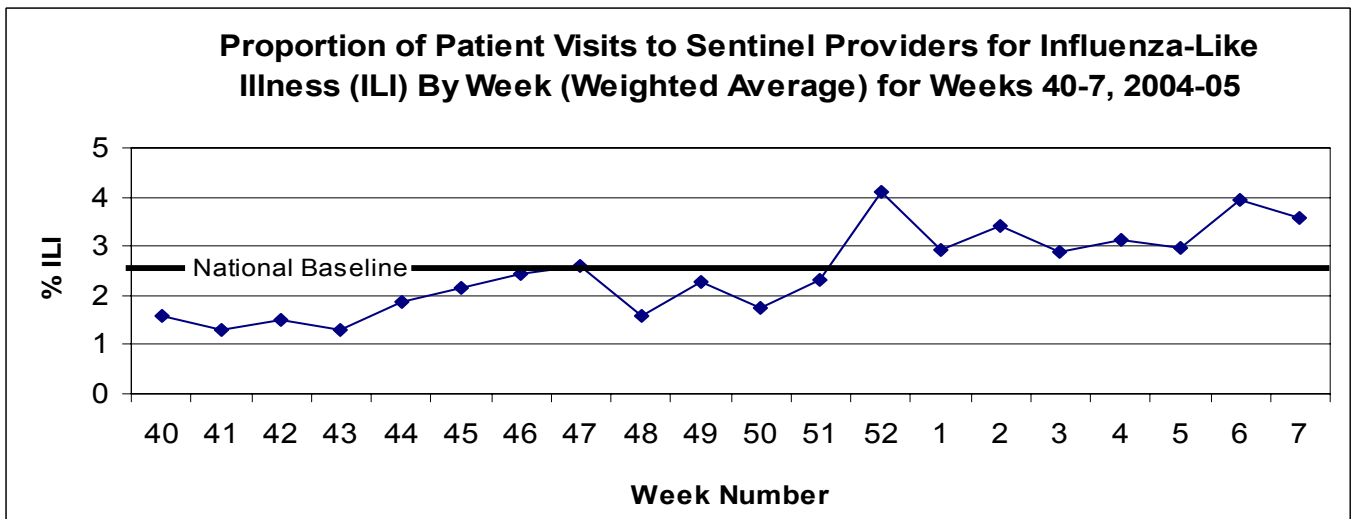


Date: February 25, 2005
To: Health Care Provider
From: Salena Savarda, BS, Epidemiologist II
Subject: Influenza Report for Week 7 (February 13- 19, 2005)

The proportion of patient visits to sentinel providers for influenza-like illness (ILI) during week 7 was **3.56%** (weighted average), which is above the national baseline of 2.5%. **Criteria for inclusion as a case of ILI are fever $\geq 100^{\circ}\text{F}$ (37.8°C) and cough or sore throat.** During week 7 the proportion of mortality due to pneumonia and influenza (P&I) in Clark County was **9.06%** and the national P&I mortality was 8.5%. The epidemic threshold for week 7 is 8.2%. The proportion of ILI cases by week in Clark County for weeks 40-7 of the 2004-2005 surveillance season reported by sentinel site surveillance is presented in the following figure:



Thirteen new laboratory-confirmed cases of influenza have been reported to the Office of Epidemiology (OOE) during week 8. This brings the total to ninety-two confirmed cases of influenza that have been reported to the OOE this season in Clark County. Twenty-three of the ninety-two cases were laboratory-confirmed as influenza B (17 cultures, 6 rapid antigen tests). Eighteen of the ninety-two cases were laboratory-confirmed as influenza A (11 cultures, 7 rapid antigen tests). The remaining fifty-one cases were laboratory-confirmed by a type of rapid test which does not differentiate between influenza A and B. **Nevada law (NAC 441A) requires that healthcare providers report all positive influenza tests (including rapid tests) to the local health authority.** Physicians and healthcare workers are reminded that any unusual occurrence of illness or suspected outbreak should be reported to the Office of Epidemiology. The 24-hour number for reporting is 759-1300.

The 2004-05 influenza vaccine includes A/Fujian/411/2002 (H3N2)-like, A/New Caledonia/20/99 (H1N1)-like, and B/Shanghai/361/2002-like antigens. A breakdown of the isolates identified circulating in Clark County thus far in the 2004-05 influenza season by type, subtype and antigenic characterization is presented in Table 1. All subtyping and antigenic characterization was conducted by the Nevada State Health Laboratory.

Table 1. Number of Isolates by Type, Subtype and Antigenic Characterization

Number of Isolates	Type	Subtype	Antigenic Characterization
5	A	H3N2	Pending
6	A	Pending	
2	B		B/Sichuan/379/99-like
1	B		B/HongKong/330/2001-like
11	B		B/Shanghai/361/2002-like
3	B		Pending

Influenza B viruses can be divided into two antigenically distinct lineages represented by B/Yamagata/16/88-Like viruses and B/Victoria/2/87-Like viruses. The B/Sichuan/379/99-Like viruses and the B/Shanghai/361/2002-Like viruses are antigenically similar to the B/Yamagata-Like lineage. The B/HongKong/330/2001-Like viruses are antigenically similar to the B/Victoria-Like lineage.

Avian Influenza

Since late June 2004, lethal outbreaks of H5N1 among poultry have been reported by several countries in Asia: Cambodia, China, Indonesia, Malaysia (first-time reports), Thailand and Vietnam. There has not been a resurgence of avian influenza in South Korea and Japan, and the outbreaks are reported to be controlled in those countries. At this time, it is unknown to what extent H5N1 outbreaks in the other countries may be ongoing. For more information about outbreaks in poultry, visit the World Organization for Animal Health website at http://www.oie.int/eng/en_index.htm

Beginning in August 2004, there have been new outbreaks of H5N1 in poultry in Asia and sporadic reports of human cases of H5N1 infection in Vietnam and Thailand. According to the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO), there has been one isolated instance of probable, limited human-to-human transmission occurring in Thailand in September, 2004. On February 2, 2005, the first human case of avian influenza A H5 infection from Cambodia was reported. As of February 17, 2005, there have been 55 human cases of avian influenza A (H5N1) in Vietnam (37), Thailand (17) and Cambodia (1) resulting in 42 deaths. For more information about H5N1 infections in humans, visit the WHO website at <http://www.who.int/en/>

According to CDC, the avian influenza A (H5N1) epizootic outbreak in Asia is not expected to diminish significantly in the short term, and it is believed that H5N1 infection among birds has become endemic to the region and that human infections will continue to occur. Thus far, no sustained human-to-human transmission of the H5N1 virus has been identified and no evidence for genetic reassortment between human and avian influenza virus genes has been found. Nevertheless, the epizootic outbreak in Asia poses an important public health threat, as these H5N1 viruses could gain the ability for efficient and sustained transmission between humans. There is little preexisting natural immunity to H5N1 in the human population, and a resulting pandemic could lead to widespread illness and death. In addition, genetic sequencing of influenza A (H5N1) virus samples from human cases in Vietnam and Thailand show resistance to the antiviral medications amantadine and rimantadine. This would leave 2 remaining antiviral medications (oseltamavir and zanamavir) that should still be effective against currently circulating strains of H5N1. As the avian influenza situation in Asia continues to evolve, the OOE will provide updated information via the health district's website (www.cchd.org), influenza newsletters, and notices.

References:

1. Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/> February 25, 2005.
2. Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/avian/outbreaks/asia.htm>

This newsletter is also posted on the Clark County Health District webpage for health care practitioners. See http://www.cchd.org/physician/physician_only.htm for this and other health and bioterrorism related information.