MARYLAND INFLUENZA SURVEILLANCE REPORT - Week 42

(October 12 to October 18, 2008)

Office of Epidemiology and Disease Control Programs | Maryland Department of Health and Mental Hygiene

- Visits to sentinel providers for influenza-like illness are below baseline
- There have been no confirmed cases of influenza reported to DHMH
- There have been no influenza outbreaks reported to DHMH
- Few hospitalizations due to influenza reported to DHMH
- Birds and pigs, and other animals, also get the flu

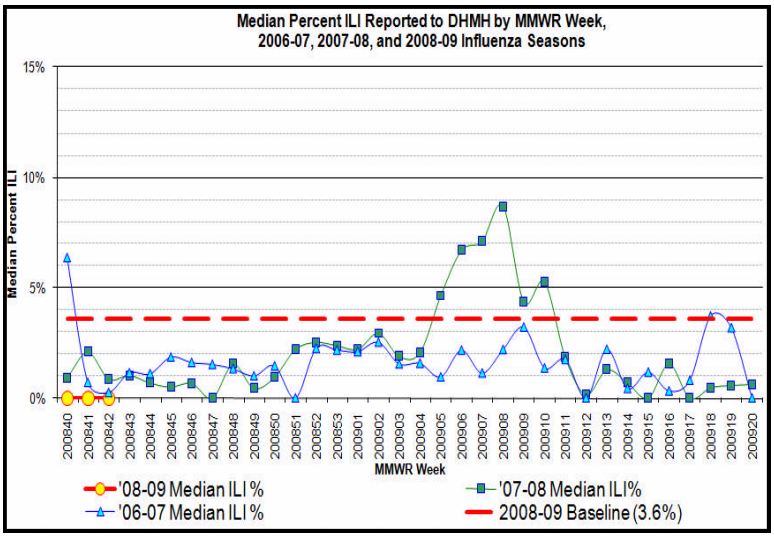
INSIDE:

VISITS TO PROVIDERS FOR INFLUENZA-LIKE ILLNESS (ILI)

This week, a total of 19 visits for ILI were reported by 7 providers. The median percent of ILI visits in Maryland was 0.0%. This is **below** the state baseline of 3.6%.

Sentinel providers are health care providers who report to us the proportion of patient visits for influenza like illness. Because of the great variability in reported ILI proportions among providers each week, the median ILI is used instead of the average. Half of the ILI reports were below the median and half were above.

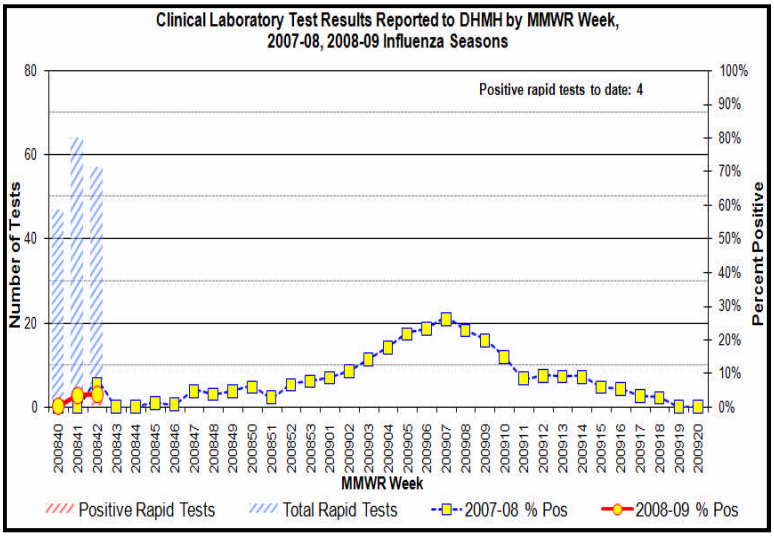
If you are interested in becoming a sentinel provider, please feel free to contact us at the addresses on page 4.



RAPID INFLUENZA TESTS PERFORMED BY SENTINEL CLINICAL LABORATORIES

This week, a total of 55 rapid influenza tests were performed by 11 reporting clinical laboratories. Of these, **2 (3.6%) tests were positive**.

Because the sensitivity and specificity of rapid flu tests vary with the prevalence of influenza in the population*, rapid flu tests performed before the first DHMH lab-confirmed case are not counted as confirmed cases for the purpose of surveillance. **Once the DHMH laboratory confirms a case by reference methods, all rapid influenza tests will be counted as confirmed cases.**



* "**Rapid Diagnostic Testing for Influenza**", Centers for Disease Control and Prevention. Available at: http://www.cdc.gov/flu/professionals/diagnosis/rapidclin.htm

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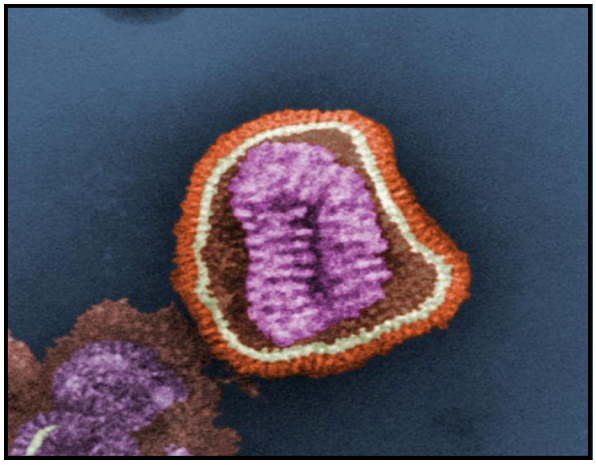
DHMH STATE LABORATORY ISOLATE TYPING AND SUBTYPING

The Maryland Department of Health and Mental Hygiene Laboratories Administration conducts reference testing for influenza on respiratory samples. These tests are real-time PCR and viral culture. Any sample positive by these methods is considered lab-confirmed.

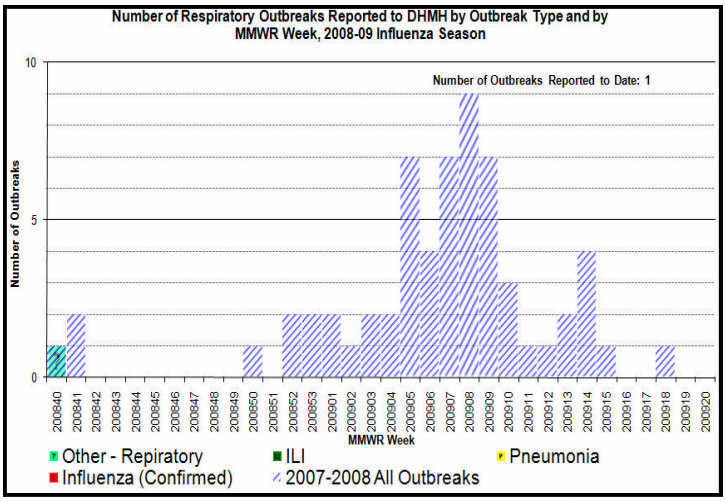
A sample of isolates processed at the DHMH public health lab is sent to CDC for further testing, including the determination of the circulating strains.

To date this season, there have been no lab-confirmed cases of influenza reported to DHMH.



Influenza virus electron micrograph (courtesy of the CDC Public Health Image Library)

INSTITUTIONAL OUTBREAKS REPORTED TO DHMH



No outbreaks of influenza or influenza-like illness were reported to DHMH this week.

Although influenza is not a reportable condition in Maryland, outbreaks of influenza in institutional settings are reportable. Please contact your local health department to report an outbreak.

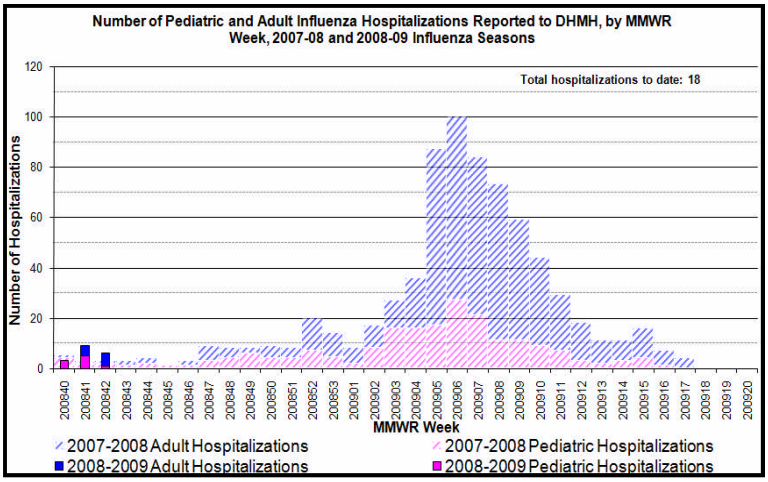
For more information about outbreak investigations in Maryland, please visit:

http://www.edcp.org/

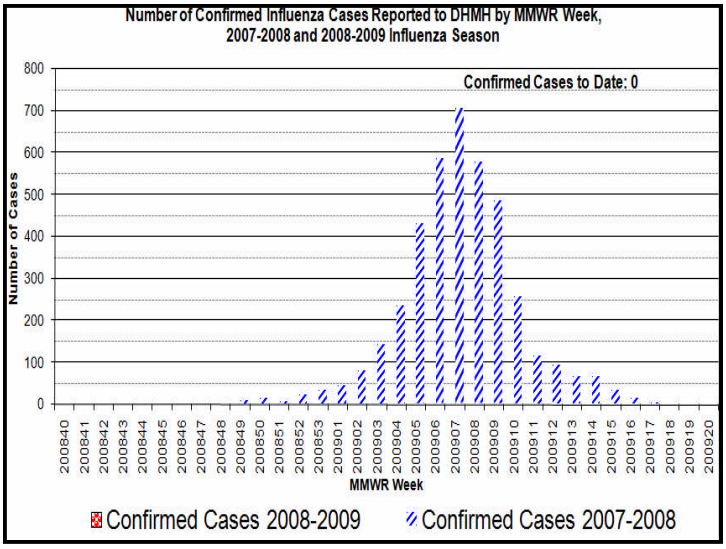
INFLUENZA HOSPITALIZATIONS REPORTED TO DHMH

The Emerging Infections Program collects information on a weekly basis from several hospitals in the Baltimore Metro Region on the number of hospitalizations associated with influenza. The number of hospitalizations is grouped by age into two categories: pediatric (for patients under 18 years of age), and adults (for patients 18 years of age and older).

This week, a total of 6 hospitalizations were reported to DHMH. Of these, 5 (83%) were adults and 1 (17%) were pediatric admissions.



MARYLAND LAB-CONFIRMED CASES OF INFLUENZA

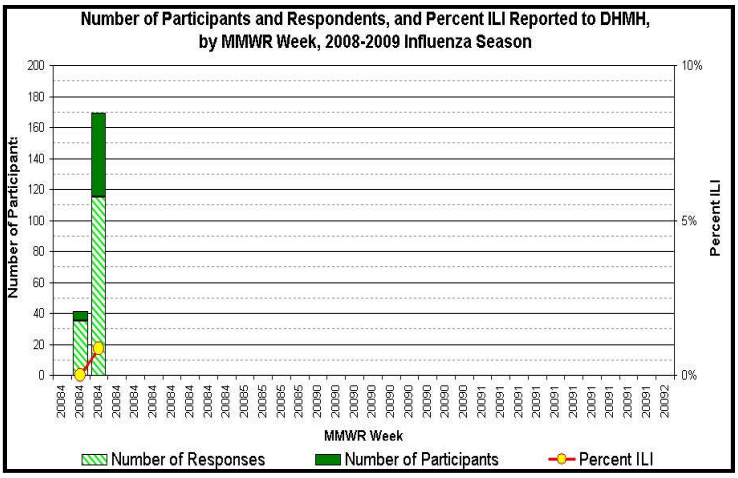


Cases are not confirmed by rapid flu test until the first influenza isolate is detected at DHMH lab. After that first isolate, all clinical laboratory tests that are positive are counted as confirmed cases of influenza for surveillance purposes.

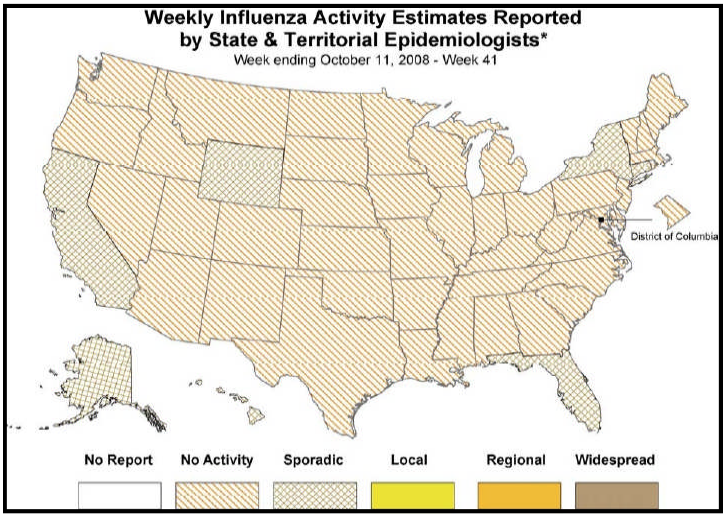
Because there have been no DHMH lab-confirmed cases of influenza to date, our case count for the 2008-2009 season remains at zero. Last season, we received reports of 4,029 lab-confirmed cases, with the peak number of cases (708) reported for week 7 (February 10-16, 2008).

MARYLAND RESIDENT INFLUENZA TRACKING SURVEY

A total of 169 participants signed up at http://tinyurl.com/flu-enroll by the end of week 42. (As of the publishing of this report, 228 Maryland residents had signed up.) Of the 169 residents who received the weekly survey, 115 (68%) responded to it. Among the respondents, 8 (7%) reported symptoms. **Seventeen (15%) of the respondents reported getting their flu vaccine this week!** Because there is no baseline to compare these results, and the sample size is small (compared to the population), caution must be taken when interpreting the results at this time.



CDC WEEKLY INFLUENZA SURVEILLANCE



According to CDC, "during week 41, a low level of influenza activity was reported in the United States." Visits to sentinel providers are below baseline, 7 states and Puerto Rico reported "sporadic" influenza activity (the other 43 states reported "no activity", including Maryland), and about 0.5% of specimens tested were positive for influenza.

"Sporadic" influenza activity means that visits to providers for ILI are below baseline and that there have been isolated lab-confirmed cases or a lab confirmed outbreak in one institution. So Alaska, California, Connecticut, Florida, Hawaii, New York, and Wyoming are reporting this level of activity. It is too early to tell where influenza activity will be detected at higher levels.

For more information, visit: http://cdc.gov/flu/weekly

Division of Communicable Disease Surveillance | Office of Epidemiology and Disease Control Programs | Maryland Department of Health and Mental Hygiene

201 West Preston Street
3rd Floor, Unit #26
Baltimore, MD 21201

Phone: 410-767-6700
Fax: 410-696-4215
E-mail: flu@dhmh.state.md.us

HEALTHY PEOPLE HEALTY COMMUNITIES

All information submitted to DHMH through the surveillance systems is voluntary. This information is used to estimate the geographic extent of flu activity, and not the virulence or pathogenicity of circulating viruses. This information is not intended for individual diagnoses.

ALL INFORMATION IS SUBJECT TO CHANGE AS MORE DATA IS SUBMITTED AFTER THE PUBLICATION OF THIS REPORT

If you have any questions about influenza surveillance in Maryland, or you would like to join our Influenza Sentinel Provider Network, please contact Rene F. Najera, MPH, Epidemiologist at the Division of Communicable Disease Surveillance in the Office of Epidemiology and Disease Control Programs.

WE'RE ON THE WEB!!!

WWW.EDCP.ORG

Chicken or Pork?

Most of the attention when it comes to "pandemic flu" has been placed on "avian flu", particularly the Type A H5N1 strain. This attention has been placed on avian flu because humans become very sick when they are infected with it. They usually become infected because they live in close proximity with infected birds. Since November 2003, nearly 400 cases of human infection with H5N1 avian flu have been reported, according to CDC.

Many of us in Public Health are familiar with the "Swine Flu Scare of 1976" more because of its "scare" component than the "flu" component (read EID Journal article cited at the end). It is deemed a scare because only a handful of cases were found to have died from the flu itself; many others suffered from side-effects of the mass vaccination campaign that came with it. Over 40 million Americans were immunized, and the debate continues today: Was the flu contained because of the vaccines? Or was no one really in danger and it was all a fiasco? It was called "Swine" Flu because the strain was Type A H1N1, and it is usually isolated from pigs.

One thing that is not a controversy is the fact that flu viruses at some point make the "jump" from wild birds to humans (passing through other mammals as well). The jump is facilitated in pigs because they are susceptible to avian, human, and swine influenza viruses. Sharing of genes can occur inside the pig, and what was once just an avian strain can become a strain that also infects humans easily (having shared its genes with those of a human strain).

So there must be a balance between causing a "scare" and actually intervening when a new-to-humans strain of influenza is detected. That is where surveillance comes in. Influenza surveillance goes beyond surveillance for human cases. Samples are continuously collected from birds, pigs, and other animals to check for flu and other viruses. These viruses are classified and studied for their potential to cause human and animal disease. Appropriate measures, from vaccines to full pandemic preparations, are then taken.

More on...

Swine Flu: www.cdc.gov/flu/swine/index.htm
Bird Flu: www.cdc.gov/flu/avian/index.htm
Horse Flu: www.tinyurl.com/horseflu
Dog Flu: www.cdc.gov/flu/canine/ndex.htm
Emerging Infectious Diseases Journal Article: http://tinyurl.com/swflufog

Please wash your hands after handling the pigs