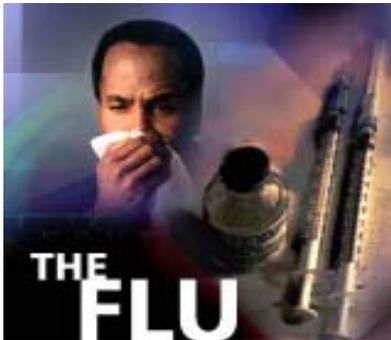




West Virginia EPI-LOG



New recommendations for 2007-2007

Flu season goals:
More coverage,
better prevention

The key word for this flu season is "more." The Advisory Committee on Immunization Practices (ACIP) recommends expanding the target populations who should receive flu vaccinations. Manufacturers have promised more vaccine will be available, spread throughout the season. Public health officials are more prepared than ever to deal with the situation, including potential shortages, thanks in part to ongoing pandemic preparedness.

Influenza should not be taken lightly. Each year in the U.S., on average:

- Five percent to 20 percent of the population gets the flu.
- More than 200,000 people are hospitalized from flu complications.
- About 36,000 people die from flu.

How flu spreads

Like the common cold, the flu is a contagious respiratory disease. Both share similar symptoms, such as fever, fatigue and body aches. Flu sufferers generally experience more severe symptoms and risk serious complications such as bacterial pneumonia, dehydration and worsening of chronic medical conditions.

The flu viruses spread from person to person, often in respiratory droplets caused by sneezing or coughing. An infected person can infect others a day before he or she shows any symptoms.

(See *Flu Season*, page 6)

Statewide Disease Facts & Comparisons

A quarterly publication
of the West Virginia
Division of Surveillance
and Disease Control

IN THIS ISSUE:

- Objectives for the coming flu season (page 1)
- Flu surveillance for 2005-2006 (page 2)
- Reportable disease surveillance update (page 4)

Division of Surveillance & Disease Control

AIDS Surveillance	(304) 558-2987
AIDS Prevention	(304) 558-2195
Cancer Registry	(304) 558-6421
Epidemiology	(304) 558-5358
Immunization	(304) 558-2188
STD Program	(304) 558-2950
TB Control	(304) 558-3669



Joe Manchin III, Governor
Martha Walker, Secretary (DHHR)

Influenza surveillance

A 2005-2006 summary and plans for the coming season

The 2005-06 influenza season was a mild one. Concerns about avian influenza were ever present but no cases of human infection with avian influenza A(H5N1) were reported in the United States. By the end of August, 2006, the World Health Organization website reported the cumulative number of confirmed human cases of avian influenza in the world to be 236, resulting in 138 deaths.

In November, 2005, the HHS Pandemic Influenza Plan was released by the U.S. Department of Health and Human Services. It serves as a blueprint for all HHS pandemic influenza preparedness planning and response activities.

The 2005-06 influenza vaccine contained:

- An A/New Caledonia/20/99(H1N1)-like virus
- An A/California/7/2004(H3N2)-like virus
- A B/Shanghai/361/2002-like virus

West Virginia employs a variety of methods for influenza surveillance:

Reporting of influenza-like illness (ILI) by providers is required by law. Local health departments compile these numbers from their providers and report them weekly to West Virginia Department of Health and Human Resources. ILI is defined as: Fever ($=100^{\circ}\text{F}$ [37.8°C], oral or equivalent) AND cough and/or sore throat (in the absence of a KNOWN cause other than influenza).

Laboratory reporting is also required by law. Laboratories which perform influenza cultures compile aggregate total numbers and send this information to WVDHHR on a weekly basis. Office of Laboratory Services offers testing for sentinel providers, health departments and outbreak investigation. All positive influenza A cultures are sub-typed at OLS and selected specimens are referred to the Centers

for Disease Control and Prevention for further antigenic characterization to determine vaccine strain.

Sentinel providers are volunteer physicians and other practitioners who collect nasopharyngeal specimens on patients who meet the case definition for ILI. Specimens are referred to OLS for testing. They also report aggregate total cases of ILI to the CDC via the internet.

Local health departments and regional epidemiologists report outbreaks of ILI, as required by law. Outbreak investigation includes laboratory confirmation at OLS.

During the 2005-06 influenza season in the United States, Influenza A (H3N2) predominated. However, influenza B viruses were isolated more frequently than Influenza A viruses after late March. Influenza A(H1N1) viruses also circulated at low levels through the season.

Nationally, activity was low from October through early January, increased during February and peaked in early March. Peak activity was less intense but remained elevated for a longer period of time this season compared to the previous three seasons.

West Virginia's flu activity mirrored the national flu

activity. The 2005-06 West Virginia influenza season's peak for Influenza A occurred in week 11 (March 12 through March 18, 2006) and for Influenza B occurred in Week 13 (March 26 through April 1, 2006.) The majority of the culture-confirmed cases were Influenza A (See Figure 1, left).

Of the 200 specimens submitted to the

Office of Laboratory Services in South Charleston, West Virginia, for testing during the 2005-06 influenza season, 77 were culture-confirmed Influenza A (63 were influenza A/H3,

(See *Surveillance*, page 3)

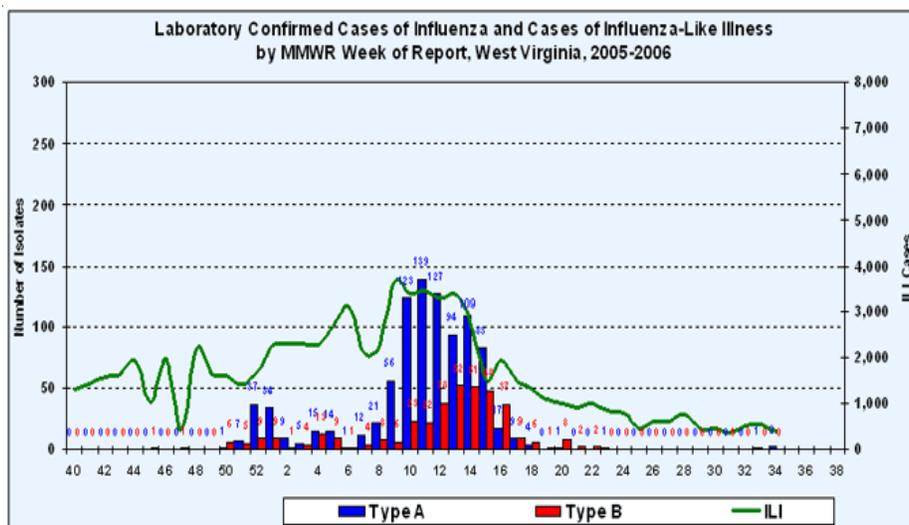


Figure 1

(Surveillance, continued from page 2)

eight were A/H1N1, three were Influenza A/California/07/2004-like (H3N2), one was Influenza A/Wisconsin/67/2005-like (H3N2) and two were Influenza A/New Caledonia/20/99-like H1N1).

Six specimens were tested by enzyme immunoassay (EIA) quick test only and were positive for influenza A. They were not cultured because they were part of outbreaks in which multiple specimens were received.

Twenty-two specimens were culture-confirmed influenza B. Five of these specimens were Influenza B/Ohio/01/2005-like.

One specimen tested positive for parainfluenza 1-2, one specimen was positive for adenovirus and two specimens were positive for respiratory syncytial virus.

Eighty-two specimens were negative and seven specimens were unsatisfactory for testing because of excess transport time and leakage.

Approximately 2,300 sentinel sites are enrolled in the United States Sentinel Provider network. Over half of them report regularly (at least half of the weeks between October and May), and over 1,700 reported at least once. The goal is to have one regularly reporting sentinel site per 250,000 residents.

West Virginia currently has 52 sentinel providers. Twenty-three, 44%, of them reported regularly, at least half of the weeks during the 2005-06 influenza season. Eighteen, 35%, of the sentinel providers submitted 81% (161/200) of the specimens to OLS. Four sentinel providers submitted specimens but did not report data to the CDC.

Twelve influenza outbreaks were reported from local health departments (See Figure 2, above).

Additional surveillance data are available at: <http://www.wvdhhr.org/IDEP/a-z/a-z-influenza.asp>

Surveillance for influenza-like illness is useful for

monitoring the influenza season; however, laboratory surveillance is necessary for identifying circulating strains.

The majority of the A(H3N2) viruses were well matched to the 2005-06 influenza vaccine but most of the influenza B viruses, particularly late in the season, were similar to the strain selected for the 2006-07 vaccine.

The 2006-07 Influenza vaccine will contain:

- An A/New Caledonia/20/99 (H1N1)-like virus
- An A/Wisconsin/67/2005 (H3N2)-like virus (A/Wisconsin/67/2005 and A/Hiroshima/52/2005 strains
- A B/Malaysia/2506/2004-like virus (B/Malaysia/2506,2004 and B/Ohio/1/2005 strains)

All sentinel providers are encouraged to continue collecting and reporting ILI data to the CDC each week for all 12 months of the year. They are also encouraged to submit specimens to OLS for testing all year long.

Year-round influenza surveillance provides a baseline level of influenza during the summer months. This data has the potential to become an importance component of early detection for an influenza pandemic or other unusual occurrence of ILI.

One of the best ways to recruit flu sentinel providers is to make a personal visit to the provider's office or clinic to explain and emphasize the importance of ILI surveillance and his/

her participation. Any primary health care provider can participate in this program. Family practice residents can complete their research requirements by participating in the CDC sentinel provider surveillance system.

You may go to the website: <http://www.wvdhhr.org/IDEP/a-z/a-z-influenza.asp> to obtain more information about sentinel provider enrollment and the required forms. The Influenza Surveillance and Response Protocol, which was updated August, 2006, is also available at this website.

Current guidelines on the management of influenza outbreaks may also be found at the CDC Morbidity and Mortality Weekly Report (MMWR) website: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr55e628a1.htm>. ☒

Date of report	County	Setting	# (%) ill	Culture confirmed?
02/16	Pendleton	Nursing home	5 (5%)	Influenza A/H3
02/28	Jefferson	Elementary school		Influenza A
03/05	Berkeley	Nursing Home	5 or 6 (10%)	Influenza A
03/07	Morgan	4 Schools	281 (13%)	Influenza A/California/07/2004-like (H3N2)
03/08	Putnam	Nursing home	7 (6%)	Influenza A/California/07/2004-like (H3N2)
03/09	Webster	Elementary school	70 (20%)	Influenza B/Ohio/01/2005-like
03/10	Grant	Elementary school	115 (19%)	Influenza B/Ohio/01/2005-like
03/11	Cabell	Nursing home		no
03/13	Ohio	Elementary school	100 (33%)	Influenza B/Ohio/01/2005-like
03/14	Marion	Schools	(15%)	no
03/15	Ohio	Middle school	80 (36%)	no
03/16	Grant	2 nd school	56 (19%)	Influenza B

Figure 2

**Confirmed and Probable Cases by Month Reported to WVEDSS
(Provisional)
January 1 to September 30, 2006
West Virginia**

This report includes only those cases reported to WVEDSS for which case status has been confirmed by the West Virginia Bureau for Public Health

Condition	Month Reported										Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
Amebiasis	0	0	0	0	0	0	0	1	0	0	1
Animal Bites	26	65	84	121	126	120	87	133	14	776	
Botulism - Infant	0	0	0	1	0	0	0	0	0	1	
Campylobacteriosis	1	5	4	7	8	9	19	10	2	65	
Crptosporidiosis	0	1	1	0	1	0	1	2	1	7	
Encephalitis, LaCrosse (California Group)	0	0	0	0	0	0	2	3	4	9	
Enterohemorrhagic E. Coli (EHEC)	0	0	0	0	0	0	2	0	0	2	
Enterohemorrhagic E. Coli (EHEC) 0157:H7	0	0	0	0	0	0	3	1	0	4	
Enterohemorrhagic E. Coli (EHEC) shiga toxin+ (not serogrouped)	0	0	0	0	0	0	0	1	0	1	
Giardiasis	0	2	1	3	4	0	2	3	0	15	
Haemophilus influenzae, Invasive Disease	1	4	4	1	0	0	2	2	1	15	
Hemolytic Uremic Syndrome, Postdiarrheal	0	0	0	0	1	0	0	0	0	1	
Hepatitis A, Acute	0	0	1	0	3	0	0	1	0	5	
Hepatitis B, Acute	0	2	2	9	7	13	7	3	1	44	
Hepatitis C, Acute	1	0	0	2	0	2	2	0	2	9	
Legionellosis	0	1	0	0	1	2	3	0	1	8	
Listeriosis	0	1	1	0	0	1	2	1	0	6	
Lyme Disease	0	0	0	0	0	2	4	2	1	9	
Malaria	0	1	0	0	0	0	1	0	0	2	
Meningococcal Disease, Inv	0	0	0	0	2	1	1	1	0	5	
Mumps	0	0	0	2	8	2	0	1	0	13	
Pertussis	0	1	3	3	4	11	1	3	0	26	
Rocky Mountain Spotted Fever	0	0	0	0	1	0	0	2	0	3	
Salmonellosis	1	9	10	9	7	14	13	25	3	91	
Shigellosis	0	0	0	0	0	1	1	0	0	2	
Streptococcal Disease, Group A Inv	2	4	2	4	4	1	1	1	0	19	
Streptococcal Disease, Group B Inv	3	3	6	5	4	6	3	7	5	42	
Streptococcal Toxic Shock Syndrome	0	1	1	3	2	0	0	0	0	7	
Streptococcus pneumoniae, Inv (>=5 years old drug resistant)	7	14	15	22	11	9	7	3	0	88	
Streptococcus pneumoniae, Inv (>=5 years old) drug sensitive	5	8	13	10	13	5	6	2	0	62	
Streptococcus pneumoniae, Inv (>5 years old) drug resistant or drug sensitive	2	2	2	1	1	1	1	0	0	10	
Tularemia	0	0	0	0	0	0	0	0	1	1	
West Nile Virus	0	0	0	0	0	0	0	1	0	1	
Total	49	124	150	203	208	200	171	209	36	1350	

(Flu Season, continued from page 1)

The single most effective method to prevent the flu is vaccination. The more people in a community who are vaccinated, the less opportunity the virus has to spread.

When and who to vaccinate

ACIP reminds providers they should routinely offer influenza vaccine to patients throughout the flu season. Although much of the public mistakenly believes that flu season ends in December, it can run from October to as late as May. In 2006, reported flu cases in West Virginia peaked in March.

Typically, demand for vaccine peaks in October and November and declines rapidly thereafter. Ironically, flu vaccine is usually more plentiful after November. Late season stock often goes unused.

Because of flu season duration and vaccine availability, scheduling vaccinations after October makes good sense. As ACIP states in its recommendations report, "Even if vaccine distribution begins in September, distribution probably will not be completed until December or January." ACIP recommends a "phased distribution during the months of October, November, and December, and possibly later."

In previous years, ACIP recommended influenza vaccine for healthy children six to 23 months of age, as well as their household contacts and out-of-home caregivers. ACIP expanded its recommendations for 2006-2007 to include healthy children aged 6 months to 59 months, plus their household contacts and out-of-home caregivers. The list of target populations for vaccination now includes:

- All children 6 months to 59 months of age
- Pregnant women
- People 50 years and older
- Those with certain chronic illnesses such as heart



conditions or weakened immune system

- People such as health care workers who live with or care for persons at high risk

In addition, ACIP emphasizes that all children aged 6

months to 9 years who have not been previously given flu vaccine should receive two doses. Children in this age range who receive inactivated vaccine should have a booster dose one month or later after the initial dose. Children aged five to 9 years who receive live (FluMist) vaccine should have a second dose of FluMist six to 10 weeks after the initial dose.

**Pandemic preparedness aids flu preparation**

Influenza vaccine distribution delays or vaccine supply shortages have occurred in the United States in three of the last five influenza seasons. For 2006-2007, manufacturers project the U.S. will have more than 100 million doses of flu vaccine available, spread throughout the flu season.

Past shortages and ongoing pandemic preparedness have helped define the role of public health organization in a vaccine shortage.

State and local health officials are best suited to identify and address gaps in vaccine distribution. These public health officials have the benefit of existing relationships with providers, patients, facility personnel and emergency authorities. Preparedness planning has also made health officials familiar with supply and redistribution activities. A final factor is the fact that public health officials have demonstrated the willingness to take on this difficult role.

Do your part: Get the shot!

Health care professionals should lead the way not only in planning but by example. Get the flu vaccination this year. ✕

The West Virginia EPI-LOG is published quarterly by the West Virginia Department of Health and Human Resources, Bureau for Public Health, Office of Epidemiology & Health Promotion, Division of Surveillance and Disease Control. Graphic layout by Chuck Anziulewicz. Please call the Division of Surveillance & Disease Control at (304) 558-5358 if you need additional information regarding any article or information in this issue, or if you have suggested ideas you would like to contribute for a future issue.