



West Virginia

EPI-LOG

Syphilis cases in Ohio County challenge disease investigators

The West Virginia Bureau for Public Health is actively collaborating with the Wheeling-Ohio County Health Department to increase community awareness of the significant increase in syphilis infections recently reported in Ohio County. Since January 2008, Ohio County has reported seven cases of early syphilis, compared to zero cases for 2007. All seven cases have been localized to the Wheeling area.

Disease Intervention Specialists from the Bureau for Public Health are investigating all cases to identify sexual partners, and those located have been referred for testing and treatment. Unfortunately, partner identification is incomplete due to the inability to locate reported partners, anonymous partners, and other factors. The Bureau for Public Health is supporting the Wheeling-Ohio County Health Department's efforts to encourage individuals who suspect possible infection to contact the county



Vintage 1940s syphilis awareness poster

(See *Syphilis*, page 5)

Statewide Disease Facts & Comparisons

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

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Division of Surveillance & Disease Control

AIDS Surveillance	(304) 558-2987
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Epidemiology	(304) 558-5358
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STD Program	(304) 558-2950
TB Control	(304) 558-3669



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

**Confirmed and Probable Cases by Month Reported to WVEDDS
(PROVISIONAL)
January 1, 2008 to June 30, 2008
West Virginia**

This report includes only those cases reported to WVEDDS for which case status has been confirmed by the West Virginia Bureau for Public Health.
Report generated on September 10, 2008.

Condition	Jan	Feb	March	April	May	June	Total
Amebiasis	0	1	0	0	0	0	1
Animal Bites	143	105	115	133	59	105	660
Anthrax	0	0	0	0	0	0	0
Botulism	0	0	0	0	0	0	0
Brucellosis	0	0	0	0	0	0	0
Campylobacteriosis	1	4	4	3	11	20	43
Cholera	0	0	0	0	0	0	0
Cryptosporidiosis	1	1	0	2	2	1	7
Cyclospora Infection	0	0	0	0	0	0	0
Dengue Fever	0	1	0	0	0	0	1
Diphtheria	0	0	0	0	0	0	0
Ehrlichiosis	0	0	0	0	0	0	0
Encephalitis, LaCrosse (California Group)	0	0	0	0	0	2	2
Giardiasis	1	7	6	7	0	4	25
Haemophilus influenzae, Invasive Disease	1	5	1	1	1	3	12
Hantavirus Disease	0	0	0	0	0	0	0
Hemolytic Uremic Syndrome, Postdiarrheal	0	0	0	0	0	0	0
Hepatitis A, Acute	1	0	0	2	0		3
Hepatitis C, Acute	0	0	0	2	4	4	10
Hepatitis E	0	0	0	0	0	0	0
Legionellosis	1	2	0	0	2	4	9
Leptospirosis	0	0	0	0	0	0	0
Listeriosis	0	0	1	0	0	0	1
Lyme Disease	0	0	1	0	2	5	8
Malaria	0	0	0	0	0	0	0
Measles (Rubeola)	0	0	0	0	0	0	0
Meningococcal Disease, Invasive	0	0	1	0	0	1	2
Monkeypox	0	0	0	0	0	0	0
Mumps	0	1	0	0	0	0	1
Pertussis	0	0	1	0	2	0	3
Plague	0	0	0	0	0	0	0
Polioomyelitis	0	0	0	0	0	0	0
Psittacosis	0	0	0	0	0	0	0
Q Fever	0	0	0	0	0	0	0
Rabies, Human	0	0	0	0	0	0	0
Rocky Mountain Spotted Fever	0	0	1	0	0	2	3
Rubella (German Measles)	0	0	0	0	0	0	0
Rubella, Congenital Syndrome	0	0	0	0	0	0	0
Salmonellosis	16	14	6	11	18	15	80
Shiga toxin-producing E.Coli (STEC)	3	2	1	3	4	4	17
Shigellosis	0	0	1	3	1	2	7
Smallpox	0	0	0	0	0	0	0
Staphylococcus aureus (GISA/VISA)	0	0	0	0	0	0	0
Staphylococcus aureus (GRSA/VRSA)	0	0	0	0	0	0	0
Streptococcal Disease, Group A Invasive	3	3	6	2	4	6	24
Streptococcal Disease, Group B Invasive	1	6	8	2	8	7	32
Streptococcal Toxic Shock Syndrome	1	0	2	1	0	3	7
Streptococcus pneumoniae, Invasive- drug resistant	3	11	18	14	18	5	69
Streptococcus pneumoniae, Invasive (<5 years old)	0	0	2	1	1	1	5
Tetanus	0	0	0	0	0	0	0
Toxic Shock Syndrome	0	0	0	0	0	0	0

INFLUENZA SURVEILLANCE:

A 2007-2008 summary and plans for the new season

As West Virginia gears up for the 2008-2009 influenza season, it is appropriate to review the experience from the last season. At the beginning of the 2007-2008 season, the influenza vaccine contained:

- An A/Solomon Islands/3/2006 (H1N1)-like virus
- An A/Wisconsin/67/2005 (H3N2)-like virus
- A B/Malaysia/2506/2004-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° [37.8°], 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 (OLS) offers testing for sentinel providers, health departments and outbreak investigation. 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.

Nationally, the 2007-2008 influenza season was moderately severe in its intensity. Influenza activity in the United States peaked in early to mid-February, and the proportion of outpatient visits to sentinel providers for influenza-like illness (ILI) and to BioSense Department of Veteran's Affairs (VA) and Department of Defense (DoD) outpatient clinics for acute respiratory illness (ARI) peaked in mid-February. In

addition, CDC reported that most circulating influenza A (H3N2) and B viruses were suboptimally matched to the vaccine strains. Overall vaccine efficacy was estimated at 44%. During a season when vaccine is well-matched to circulating viruses, vaccine efficacy may be as high as 70-90% among healthy adults.

During the 2007-08 influenza season, more influenza A viruses than influenza B viruses were identified in all surveillance regions of the United States; however, the predominant influenza A virus varied by region. In West Virginia, influenza A (H3N2) was most commonly reported. The 2007-08 West Virginia influenza season's peak for both influenza A

and influenza B occurred in week 8 (February 17-23, 2008). The majority of the culture-confirmed cases were influenza A (see chart on this page).

Of the 167 specimens submitted to the OLS in South Charleston, West Virginia, for testing during the 2007-08 influenza season, 39 were culture-confirmed influenza A. Twenty-one of the positive influenza A specimens were

H3, 8 were H1 and 10 were not subtyped.

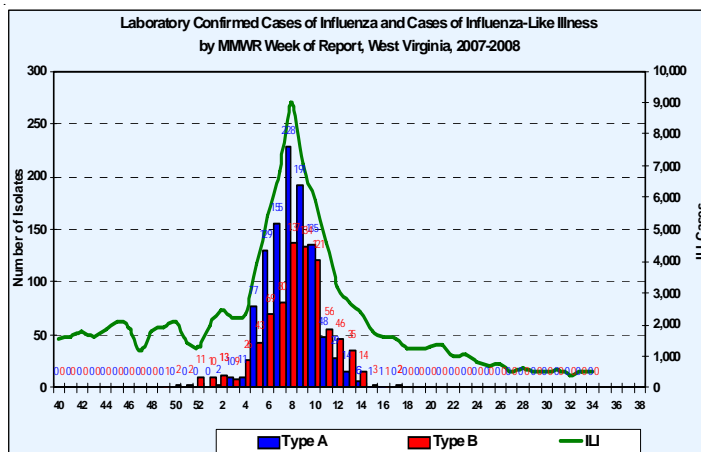
Two influenza A specimens were subtyped by the Centers for Disease Control and Prevention. One was A/Brisbane/10/2007 H3N2 and the other was A/Wisconsin/67/2005 H3N2.

Twenty-nine specimens tested at OLS were culture-confirmed influenza B. Four influenza B specimens were subtyped by the CDC. All were B/Florida/04/2006-like.

In addition, one specimen submitted to OLS tested positive for respiratory syncytial virus (RSV) and one specimen tested positive for parainfluenza. Ninety seven specimens were negative.

West Virginia currently has 51 sentinel providers in 38 counties. Over 50% of West Virginia Sentinel Providers reported at least half of the weeks during the 2007-08 influenza season.

Nine culture-confirmed outbreaks of influenza were reported during the 2007-08 season. Two nursing home



(See *Influenza*, page 5)

Q&A: Legionnaires' disease and Pontiac Fever

In June of 2008, one male and two female residents of Charleston contracted Legionnaires' disease over a two-week period. One of the women died and the other two persons were hospitalized in intensive care. The source of contamination was not identified

What is legionellosis?

Legionellosis refers to infection with Legionella bacteria which can cause two different diseases: Legionnaires' disease and Pontiac Fever. Legionnaires' disease is a type of pneumonia and is more serious than Pontiac Fever. Each year 8,000 to 18,000 people in the US are hospitalized with Legionnaires' disease. In West Virginia, approximately 20-30 cases per year are typically reported. Although the disease can occur any time, more cases are seen in the summer and early fall.

What are the symptoms of legionellosis?

People with Legionnaires' disease often have high fever, chills, cough, muscle aches, headache, loss of appetite, diarrhea, abdominal pain, and pneumonia. Symptoms begin 2-14 days (usually 5-6 days) after an exposure. Legionnaire's disease can be very serious and must be treated with antibiotics.

People with Pontiac fever have a milder disease with symptoms that include fever, muscle aches, loss of appetite, and headache. This is a mild flu-like illness with symptoms that usually begin within 24-48 hours after exposure. Pontiac fever resolves without treatment in a few days.

Where do Legionella bacteria come from?

Legionella bacteria are very common in the environment and are usually found in association with water.

How do people get exposed to Legionella?

People can be exposed to Legionella through breathing in mist or water vapor that has been contaminated with the bacteria. Exposure is probably fairly common, but serious disease caused by exposure is rare.

Legionellosis (Legionnaire's Disease or Pontiac Fever) has been associated with breathing water vapor from cooling towers, humidifiers, whirlpool spas, respiratory therapy devices, decorative fountains, showers, and hot tubs.

Legionella has not been demonstrated to spread from one person to another.

Who is most at risk for legionellosis?

Most people exposed to the bacteria do not become ill. When Legionnaire's disease does occur, it is more common in adults over the age of 50 and is extremely rare in those under age 20. It is more common in males than females. It is also seen more commonly in:

- People who smoke;
- People with diabetes, chronic lung disease, or kidney disease; and
- People with depressed immune systems.

Pontiac fever is usually recognized in healthy young adults.

Who should be tested for legionellosis?

People with pneumonia, particularly if they have a depressed immune system or other chronic medical conditions, should be considered for Legionella testing. A medical doctor can help decide if Legionella testing is needed. Public health officials are available to assist with these decisions. Testing is usually not recommended for people without symptoms of this disease.

How does the health department investigate legionellosis?

With individual cases, it is difficult to determine the source of infection because Legionella bacteria are so common in the environment and because people come in contact with water vapor in so many places. Investigations are usually done if a legionellosis outbreak is suspected. Interviews are done with the patient or family members to find out where the patient has been in the two weeks before getting sick.

Emphasis is placed on areas where water vapor is commonly found. Patients in an outbreak are compared to one another to see if they have been in the same place during the same time period. Outbreaks have been linked to hospitals, hotels, and cruise ships with the most likely sources including cooling towers and whirlpool spas.

When should environmental testing be done?

When the investigation of an outbreak suggests a likely common source of exposure for the cases, environmental testing may be done. Environmental samples may be matched to patient samples to try and determine the source of exposure to the bacteria. ☒

(Influenza, continued from page 3)

outbreaks were influenza A and two were influenza B. A fifth nursing home outbreak was both influenza A and B. A long term care facility outbreak was influenza B. In addition, there was a training center outbreak (influenza A); a correctional facility outbreak (influenza A); and a health care facility outbreak (influenza B).

Additional surveillance data are available at: <http://www.wvoehp.org/AZIndexofInfectiousDiseases/InfluenzaSurveillanceData/tabid/1577/Default.aspx>

The recommended composition of influenza virus vaccines for the 2008-2009 northern hemisphere influenza season:

- An A/Brisbane/59/2007 (H1Ni)-like virus
- An A/Brisbane/10/2007 (H3N2)-like virus*
- A B/Florida/4/2006-like virus**

(*A/Brisbane/10/2007 is a current southern hemisphere vaccine virus. **B/Florida/4/2006 and B/Brisbane/3/2007 (a B/Florida/4/2006-like virus) are current southern hemisphere vaccine viruses.)

Local Health Departments in West Virginia should be recruiting sentinel influenza providers now. 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.

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. During the 2007-2008 influenza season, site visits were made to eleven sentinel providers and top reporters were given a copy of the Red Book, 2006 Report of the Committee on Infectious Diseases. All sentinel providers are recognized with a certificate of appreciation from CDC in the spring of each year. Year-round influenza surveillance provides a baseline level of influenza during the summer months. This data has the potential to become an important component of early detection for an influenza pandemic or other unusual occurrence of ILI.

During the 2007-2008 influenza season, a pilot study was done of hospitalized influenza patients. Three hundred and five records were reviewed. The highest number of hospitalizations occurred in patients 65 years of age or older. Peak hospitalization occurred during week 9, February 24th through March 1st. The case fatality rate was 2%, and all fatalities occurred in persons 65 years of age or older. Fifty

percent of these hospitalized patients had risk factors (diabetes, chronic heart or lung disease, etc) and 30% had complications, most commonly pneumonia.

Future plans include refining the data collection instrument. We also intend to explore the feasibility of including all Kanawha County hospitals and measuring population-based hospitalization rates.

To obtain more information about sentinel provider enrollment and the required forms, go to: <http://www.wvoehp.org/AZIndexofInfectiousDiseases/Influenza/tabid/1518/Default.aspx>. The Influenza Surveillance and Response Protocol is also available at this website, along with guidelines on management of outbreaks, avian and pandemic influenza, and other resources. ☒

(Syphilis, continued from page 1)

health department for free confidential testing and treatment.

Statewide, the number of reported cases of early syphilis in West Virginia has increased 67% since 2003. Therefore, the Bureau for Public Health is encouraging all county health departments, especially those located in counties that border Ohio County or are located in the northern part of West Virginia, to screen and test for syphilis all individuals at risk for sexually transmitted diseases. The Office of Laboratory Services has been informed of this situation and will provide supplies to accommodate county health department needs.

The HIV/AIDS/STD Program will make available to the county health departments, especially those located in counties that border Ohio County or are located in the northern part of West Virginia, any CDC recommended drugs required to treat syphilis infections. The Program encourages these county health departments to maintain adequate stock of drugs for preventative or therapeutic treatment of syphilis infections.

In an effort to successfully prevent and control the transmission of syphilis within the state, the Bureau for Public Health requests that county health departments inform private providers of the situation and the need for reporting of disease and treatment. The HIV/AIDS/STD Program will be available for questions and concerns regarding prevention, testing, treatment, and follow-up evaluation for syphilis infections at 1-800-642-8244 or (304) 558-2950. ☒

“Hot Topics in Public Health”

Sponsored by
WV Bureau for Public Health
Division of Surveillance and Disease Control
Wednesday, November 19, 2008
12:00 pm - 5:00 pm
Charleston Marriott-Town Center

Target audience: Local health departments, regional epidemiologists, Disease Intervention Specialists (DIS), and Division of Surveillance and Disease Control staff members.

Synopsis: Two DSDC programs (HIV/AIDS & STD, and IDEP) are collaborating to bring you time sensitive information you need to do your jobs. The first half of the training will answer your questions about new CDC HIV reporting forms, the laboratory submission form, reimbursement for HIV counseling and testing, the recent syphilis outbreak, and will introduce you to the roles and responsibilities of the DIS. The second half of the training is geared toward the outbreak surveillance system, rabies post exposure prophylaxis, influenza surveillance, and community mitigation of pandemic influenza. This part of the training will help you deal with these common and potentially high profile health conditions.

Goal: The training goal is to update our public health partners on “hot topics” in infectious diseases.

Continuing education: PENDING. A request to the Division of Local Health is pending for CEU's for this program. The Division of Local Health is an approved provider of continuing nursing education by the State of West Virginia Board of Examiners for Registered Professional Nurses under Provider Number WV99-0272RN. Continuing Education Hours are being requested from the WV Board of Registration for Sanitarians. At this time, we anticipate 4.8 hours for Registered Nurses and 4.0 for Registered Sanitarians.

Additional information: There are NO REGISTRATION FEES associated with this training. This training has been planned with your convenience in mind: “The 2008 WV Public Health Symposium: A Focus on Collaboration and Partnerships” will be held the two days following the “Hot Topics” training, also at the Marriott. We hope this will minimize travel time and increase your ability to participate in both trainings. Information regarding the symposium is available on the DSDC website: www.wvscd.org

Parking is available for a nominal fee in the Marriott Parking Building and the Charleston Town Center Mall Parking Garage. Participants are responsible for parking fees. On-site sign-in (you must pre-register via WVTRAIN) will be from 11:30 am until 12:00 pm, followed by lunch at 12:00 noon, with the training beginning at 12:30 pm. Enrollment is limited to 100 participants and registration will close November 12, 2008. To register for this training, visit <https://wv.train.org>.

For more information:
Contact Christina Lynch, DSDC Training Coordinator
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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.

**West Virginia Department of Health and Human Resources -
Bureau for Public Health - Division of Surveillance and Disease Control**