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Louisiana Morbidity Report

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What's "Tick"-ing?

Gary A. Balsamo, DVM MPH&TM; Mary J. Murphy, MD

In July 2006, a forty year-old male HIV patient presented to a clinic complaining of fever and rash. Two weeks prior, the patient had noticed an erythematous macular rash on the trunk and extremities, including the palms of the hands and soles of the feet. He developed edema and erythema of both feet and numbness in the extremities three days prior to presentation and began to experience a sore throat twenty-four hours prior to the visit.

On physical examination, the patient was diaphoretic and appeared acutely ill. He was febrile (temperature: 101.3°F), tachycardic (heart rate: 123 BPM), and exhibited mild oropharyngeal infection. The sclerae were clear, exhibiting no signs of icterus. Pitting edema, erythema, warmth and tenderness were noted in the left foot. The right foot was slightly erythematous but edema and tenderness were absent. He also experienced decreased sensation in the distal left extremity.

Laboratory findings indicated evidence of a new onset anemia (present hemoglobin: 11.4 g/dl, hematocrit: 36; previous hemoglobin: 14.1 g/dl, hematocrit: 40.8). The AST was mildly elevated (55 IU/l), and albumin was 2.9 g/dl.

The patient related that he had spent the month of June 2006 working and living with family members on Long Island, New York. Shortly after his arrival in Long Island he noticed a lesion on his left eyelid resembling a sty, which resolved spontaneously a few days later. After resolution of the eyelid lesion, the patient began to experience night sweats and subjective fevers. The symptoms were accompanied by increased fatigue and eventually, paresthesia and numbness in the lower extremities.

During the patient's stay on Long Island he reported taking frequent walks on the beach. He also recalled a sojourn to Fire Island during which he remembered sustaining a scratch on his left foot as he brushed against a vine while walking. He denied engaging in unprotected sexual activity.

After referral to a hospital and an additional clinic visit, the patient continued to experience night sweats and fatigue. The edema

and erythema in the left foot had abated somewhat and the rash had begun to fade on the trunk, but persisted on the palms and soles. His temperature and heart rate were still mildly elevated. Laboratory findings from the hospital indicated a persistent anemia and an elevated AST (70 IU/l). A bacterial blood culture has shown no growth to date. The Rapid Plasma Reagin (RPR) test from the earlier clinic visit was positive although an RPR from eleven months prior had been non-reactive. He was treated with 2.4 million units of benzathene penicillin intra-muscularly and was scheduled for two additional doses.

The patient was referred to a second clinic for serologic evaluation for Lyme borreliosis, babesiosis and ehrlichiosis. Empiric therapy for babesiosis, Lyme disease and ehrlichiosis was initiated consisting of 100 mg of doxycycline twice per day for twenty-one days, an initial dose of 500 mg azithromycin followed by 250 mg daily for seven days and 750 mg atovaquone twice per day for seven days.

A week after initiating the above therapy, serologic results indicated a positive titer for *Babesia microti* (IgM > 320). Lyme and *Ehrlichia* titers were negative. The patient was informed by phone and reported that fever and night sweats had resolved, the rash had almost disappeared, but that some fatigue persisted. Later laboratory results indicated persistent anemia without further worsening.

At a follow-up clinic visit some three weeks later, the patient appeared well. All physical symptoms had resolved.

NOTE:

Arthropod-transmitted diseases cause enormous morbidity, mortality and economic losses worldwide. Babesiosis, a tick borne zoonosis, is one such arthropod-borne disease, caused by a protozoan. The primary etiologic agents of human babesiosis in North America and Europe are *Babesia microti* and *Babesia divergens*, respectively. These causative agents are intraerythrocytic protozoa of the phylum *Apicomplexa*. The organisms share some similarities with the causative agents of malaria, *Plasmodium* species and can be mistaken for such.

Animal babesiosis exists in most temperate and tropical areas of the world and causes significant economic losses in cattle. By 1943, the disease was eradicated from cattle in the U.S. although re-introduction is a constant threat. *B. microti* is primarily transmitted through nymphal ticks that feed on rodents, such as the white-footed mouse, *Peromyscus leucopus*. Since transstadial transmission does not occur between nymph and adult tick, larger adult ticks that feed on deer and cattle are usually not vectors of the disease. Thus *B. microti* is not an important infection of cattle in the U.S.

The first case of human babesiosis was described in 1956. Since that time, hundreds of cases have been reported, mostly in the U.S. and Europe. The primary vector of babesiosis in the United States

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is the deer tick, *Ixodes scapularis*, also a vector of Lyme disease and human granulocytic ehrlichiosis. In endemic areas, simultaneous infections with two or three of these diseases is not uncommon. Increased deer populations in rural and suburban areas enhance the risk of transmission of both arthropod-borne diseases. The organism can also be transmitted through blood transfusions and can occur along with other tick-borne diseases such as Lyme disease.

In North America, *B. microti* infections are most often asymptomatic or self-limiting. In young adults asymptomatic infections may persist for years. The self-limiting illness usually appears one to four weeks after the tick bite or four to nine weeks after transfusion. After approximately one week of general malaise, loss of appetite and fatigue, the patient may experience fever, muscle ache and diaphoresis. Laboratory manifestations of hemolysis are usually present. Occasionally elevated hepatic enzymes and thrombocytopenia are also observed.

Life threatening hemolytic disease, caused by direct red cell invasion and membrane alteration by the parasite with resultant anemia and jaundice, often occurs in the immune-suppressed patient. The condition may progress to renal failure and death. In AIDS patients, frequent relapses and prolonged duration are often characteristic. Lymphopenia is occasionally seen in cases of babesiosis.

Definitive diagnosis is usually determined by demonstrating characteristic trophozoites in thick or thin blood smears. Several thick or thin smears are often examined before discovery of the organism. *Babesia* species only circulate ring trophozoites, which makes differentiation with *Plasmodium falciparum* occasionally problematic. Travel history and knowledge of morphologic differences between the organisms can be used to correctly identify the etiology. Often a characteristic tetrad of trophozoites appears in blood smears infected with *Babesia*.

Serologic testing, as utilized in the case discussed above, is also useful. However, specific antibodies are not detected for a minimum of one week following illness onset. This delay in identifiable antibody production can be a problem, especially in cases involving *B. divergens* which often progresses to fulminant disease rapidly.

In the United States *B. microti* is the most common parasite transmitted in blood transfusions, with more than forty cases of transfusion-related babesiosis being reported since 1980. The process used to remove *T. cruzi*, the causative agent of Chagas disease, is not effective in removing the agent of babesiosis. The increase in geographic range of the vector, the appearance of new causative species and increased prevalence of the organism in the United States are disturbing. In some communities in endemic areas, serologic evidence of infection was demonstrated in ten percent of inhabitants. Additionally ample evidence exists that chronic carriers can remain parasitemic for long periods of time. Development of methods to control transfusion associated transmission, not initiated as of yet, seems appropriate, although the odds of acquiring the infection through transfusion are currently estimated to be less than one in one million.

In the recent past, human babesiosis cases were limited geographically to suburban and rural areas of New York, Massachusetts, Rhode Island and Connecticut, with hyperendemic areas in coastal regions, especially Cape Cod, Nantucket and Martha's Vineyard in Massachusetts, Fire Island in New York and Block Island in Rhode Island. However the northeastern endemic area has expanded

to include New Jersey, where slightly less than half of the state's counties have reported cases, as well as several additional eastern and Midwestern states. Cases have also been identified in California, Washington, Kentucky and Missouri. As stated above, new causative species have been identified. The causative organism of human babesiosis in California and Washington is not identical to, but is related to *Babesia gibsoni*. The etiologic agent in the Missouri and Kentucky cases is closely related to *B. divergens*, the causative agent in Europe.

Primary prevention of babesiosis as well as all tick-borne infections involves prevention of tick attachment or early removal of ticks soon after attachment. Ticks attached less than twenty-four to thirty-six hours are less likely to transmit disease. Frequent tick inspections are also recommended to facilitate early tick removal. Use of permethrin-treated fabric and repellents are also recommended for persons working in areas where ticks may be abundant.

When history of travel to endemic areas, recent blood transfusion, or tick exposure is noted, babesiosis should be included in the differential diagnosis for febrile illness with evidence of hemolysis. In usual circumstances, timely initiation of appropriate antibiotic therapy results in complete recovery, although exchange transfusion has been used in severely ill patients with high parasitemia.

In the case mentioned above, suspicion exists that the "sty"-like lesion noticed on the patient's eyelid may have been, in fact, a nymph stage of an Ixodid tick or a lesion secondary to previous tick attachment, which offers an explanation for exposure to the agent.

For references or more information please contact Dr. Murphy at the Louisiana State University Health Science Center, Section of Infectious Diseases or Dr. Balsamo (504) 219-4593, gbalsamo@dhh.la.gov.

Diabetes in Region 3 Health Units - Louisiana, 2006

Penny Cuneo, RN BSN

Introduction:

The purpose of this survey was to determine the prevalence of diabetes among the Region 3 health unit population (Southeastern

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section of Louisiana). OPH Region 3 was interested in determining if BRFSS (Behavioral Risk Factor Surveillance System) data held true for a specific population (Health Unit). Questions were also added to the survey tool inquiring about annual influenza shots, recommended routine immunizations and smoking status of survey participants.

Background:

The State of Louisiana's 2004 Diabetes Prevention and Control Program Annual Report reported that in Region 3, BRFSS data showed a 10.4% prevalence rate (self reported if they had ever been diagnosed with diabetes). This percentage is high in comparison with a US percentage of 7% and the state of Louisiana percentage of 8.3%.

Method:

A survey tool was distributed by the receptionist to every individual who presented at the health unit (Assumption, Lafourche-Thibodaux, Lafourche-Galliano, St. James, St. John, St. Mary, and Terrebonne) for services during the week of March 27- March 31, 2006. At the end of the week, all completed surveys were collected and sent to the regional epidemiologist. The data was entered into an Excel database. Analysis was completed using Epi Info 2002.

Results:

A total of 506 assessment forms were collected throughout Region 3. Of this 506, twenty-seven or 5.3% indicated they had diabetes. More people claiming to have diabetes claimed that they had 'gestational' diabetes versus any other type of diabetes.

Most survey participants stated they did not smoke. However, a higher percentage of persons with diabetes stated they do smoke vs. all respondents.

Seventy percent of persons with diabetes claim to have family members who have been diagnosed with diabetes versus fifty percent of all respondents claiming to have family members who have been diagnosed with diabetes.

Numerous complications can arise from diabetes including: heart disease, strokes, blindness, high blood pressure, kidney disease, nervous system disease, amputations, dental diseases and complications of pregnancy. Many of these complications could be lessened greatly if an individual is aware of what measures need to be taken. There are certain recommended tests that persons with diabetes should have at least annually (eye exam, foot exam, dental exam, blood sugar [A1C], blood pressure and blood cholesterol). Only half of the persons with diabetes claimed to have had their blood pressure checked and eyes examined in the past twelve months. Less than fifty percent (in many cases, much less than 50%) claim to have had foot exams, dental exams, blood sugar (A1C) tested, and blood cholesterol checks in the past twelve months.

More than half of the persons with diabetes stated they had been to a diabetes education class.

In looking specifically at the diabetics, two-thirds of that population were satisfied with the diabetic care that they were receiving. It is unknown if they were aware of what satisfactory diabetic care entails.

About one-fourth of both groups stated they took the flu

shot every year. The percentage of persons with diabetes taking the flu shot was slightly higher at twenty-nine percent. A higher percentage of people with diabetes (81.5%), reported that they and their family received recommended vaccines routinely than did all respondents (67%).

Survey participants (both general and diabetic) did respond more favorably to receiving recommended vaccines routinely.

The Louisiana Tobacco Program states that more than 750,000 adults (24.6%) in Louisiana currently smoke cigarettes. About nineteen percent of the general survey participants claimed to smoke and a slightly higher percentage of diabetic survey participants smoked.

Discussion:

As literature shows that many people who have diabetes haven't been diagnosed yet, this percentage of 5.3% could be higher.

According to this survey data, Region 3 has a lower percentage of persons with diabetes versus the percentage of persons with diabetes shown by the BRFSS data. There are several possible reasons for this discrepancy:

- 1 - People with more serious diabetes disease or complications may go to their private physician for all care versus going to the health unit.
- 2 - The age group distribution of the survey may be different from that of the BRFSS.

More education is needed on diabetes regarding sign and symptoms, risk factors, long term effects of uncontrolled diabetes, recommended annual tests for diabetics and standards of care for diabetics as well as more education on the importance of flu vaccine and recommended vaccines in general, especially if a person has diabetes. In addition, information could be provided to the health unit population as to where local, diabetic classes are held.

For more information, contact Penny Cuneo at (985)447-0916 or pcuneo@dhh.la.gov.

Announcement

Updates: Infectious Disease Epidemiology Webpage
<http://www.infectiousdisease.dhh.louisiana.gov>

ANNUAL REPORT: Amebiasis, Antibiotic, Botulism, Brucellosis, Campylobacter, Creutzfeldt-Jakob Disease, Cryptococcus, Cryptosporidiosis, *E. Coli*, Enteric Viral Infections (Norovirus, Rotavirus), Giardiasis, Gonorrhea, *Haemophilus Influenzae* Type b, Hepatitis C, HIV/AIDS, Influenza, Legionella, Pertussis, Pneumococcal Disease, Pneumonia, Psittacosis, Rocky Mountain Spotted Fever, Salmonella, Tularemia, Vibrios

BT MANUAL: Foodborne, Tularemia, Viral Hemorrhagic, Zoonotic
EPIDEMIOLOGY MANUAL: Botulism, *E. coli* Form, Foodborne Outbreak, Hepatitis C, Rodent Transmitted Infections, Streptococcal Infection Group B & Newborn Investigation Form

LINKS/New Pages: Hepatitis, Influenza

LOUISIANA MORBIDITY REPORT: 1990-1996, Indices

WEST NILE VIRUS: West Nile in Louisiana, 2006

Save The Date

Field Epidemiology Techniques Training (FET)
 March 6-7 2007

DEATH AT WORK: Fatal Occupational Injuries Louisiana, 1995-2004

Mariella Gastanaduy, MPH; Michelle Lackovic, MPH

This study examines ten years (1995-2004) of work-related fatality data for Louisiana. A fatal work-related injury is an injury occurring at work that results in death.

Data were obtained from the Census of Fatal Occupational Injuries (CFOI), a Federal/State cooperative program administered by the Bureau of Labor Statistics (BLS), which is charged with annually collecting detailed information on all work-related fatalities occurring in the U.S. The CFOI uses diverse State and Federal data sources to identify, verify and profile fatal work-related injuries. Information about each workplace fatality (e.g., circumstance of the event, industry, occupation, type machinery or equipment involved and other worker characteristics) is obtained by cross-referencing source documents, such as death certificates, workers' compensation records, medical examiner reports and police reports as well as news and other non-governmental reports.

CFOI includes fatalities resulting from non-intentional injuries such as falls, electrocutions and acute poisonings as well as fatal injuries from motor vehicle crashes that occurred during travel for work. Also included are intentional injuries (i.e., homicides and suicides) occurring at work. Fatalities that occur during a person's commute to or from work are not counted nor are illnesses or any condition produced in the work environment over a period longer than one workday or shift.

Results

During the ten-year period, there were 1289 fatal work-related injuries in Louisiana. (Table 1)

Fatality counts ranged from ninety-five to 159 per year with an average of 129 fatal work injuries per year. This corresponds to approximately one on-the-job fatal injury every 2.8 days.

Table 1: Number of fatal work-related injuries - Louisiana, 1995-2004

Year	Number of Deaths
1995	139
1996	134
1997	137
1998	159
1999	141
2000	143
2001	117
2002	103
2003	95
2004	121

Table 2: Fatal work-related injuries by age and sex- Louisiana, 1995-2004

	Number	Percent
Total Work-Related Fatalities	1289	
Sex		
Male	1201	93.1
Female	88	6.8
Age		
16-19	36	2.8
20-24	102	7.9
25-34	315	24.4
35-44	332	25.8
45-54	262	20.3
55-64	172	13.3
65 & older	62	4.8

**Age was not reported for 8 people*

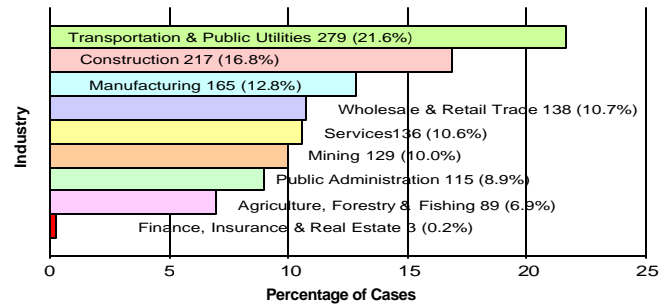
The vast majority of work-related fatalities occurred among men (1201 cases, or 93.1% of all cases). (Table 2)

Workers between 25 and 54 years of age accounted for 70.5% of all fatalities.

During the ten-year period, CFOI used two different systems to classify industry. From 1995 to 2002, CFOI used the 1987 Standard Industrial Classification Manual. Since 2003, it has been using the 2002 North American Industry Classification System. To simplify and present an overview of industry data, industry codes for 2003 and 2004

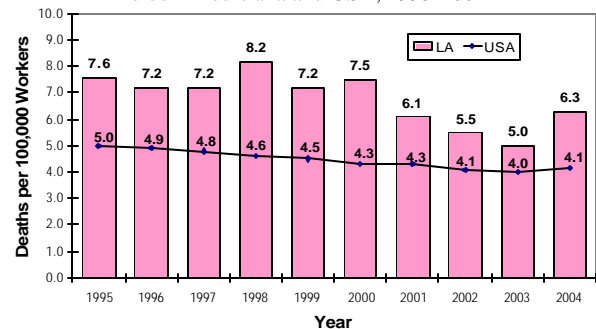
were grouped according to the earlier years. Industry data were not available for eighteen cases. (Figure 1)

Figure 1: Work-related fatalities by injury - Louisiana, 1995-2004



Crude annual death rates for Louisiana and the U.S. were calculated by dividing the annual number of fatal work-related injuries by the number of employed persons aged sixteen years or older for the same calendar year. Denominator data were obtained from BLS's Current Population Survey (CPS): a monthly survey of about 60,000 households representing the civilian non-institutionalized population of the U.S. The CPS collects labor force information from which estimates on the number of persons employed and unemployed at the state and national levels are calculated. (Figure 2)

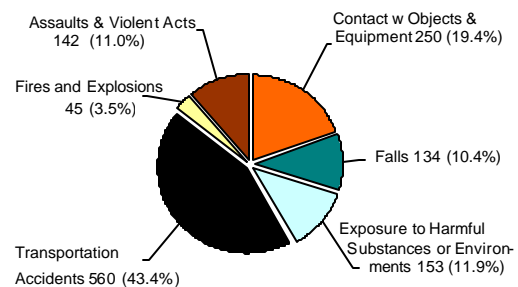
Figure 2: Fatal work-related injury rate per 100,000 workers, ages 16 and older - Louisiana and USA, 1995-2004



As shown in Figure 2, between 1995 and 2004 the U.S. work-related injury fatality rate declined eighteen percent. The figure also shows that in Louisiana, the rate declined seventeen percent from 7.6 deaths per 100,000 workers in 1995 to 6.3 per 100,000 workers in 2004. Despite this decrease, Louisiana's rate of work-related fatalities has been consistently higher than the U.S. rate: the average rate for Louisiana is 6.8 compared with 4.5 for the U.S. rate.

The CFOI classifies each fatal event or exposure into one of six major categories. (Figure 3)

Figure 3: Fatal work-related injuries by cause of death Louisiana, 1995-2004



A significant proportion of **transportation accidents** are high-way incidents, followed by incidents where a worker is struck by a vehicle or mobile equipment and aircraft accidents.

The **contact with an object or equipment** category includes incidents where a worker is struck by an object (including a falling object) or caught in equipment or machinery. **Exposure to harmful substances or environments**, the third most common cause of worker fatality, primarily involves accidents resulting from contact with electric currents or oxygen deficiency. **Assault or violent acts** may be defined as a homicide or suicide. The majority of assaults were homicides involving a shooting. **Falls** are primarily a fall to a lower level such as fall from a roof, ladder, or scaffold.

There were no data reported for **bodily reaction and exertion** for any of the years studied; fatal event data were not available for five cases.

CFOI's work-related fatality data indicate Louisiana's workforce has a greater risk of a work-related injury than the U.S. workforce. There are multiple risk factors associated with work-related fatalities such as workplace processes and design, work organization, worker characteristics, economics and other social factors. The data clearly suggest that preventing transportation accidents (particularly high-way accidents) would greatly impact work-related fatalities and further investigation of the factors associated with highway fatalities is warranted. An objective of Office of Public Health's (OPH) Occupational Health Surveillance Program (funded by a 3-year CDC grant) is to conduct surveillance of basic occupational health indicators using existing data systems, such as CFOI. In turn, the surveillance findings can be used by OPH in conjunction with employers, labor unions, health and safety professionals and community-based organizations to develop and disseminate feasible and effective interventions that can prevent workplace fatalities.

For more information about OPH's Occupational Health Surveillance Program contact Michelle Lackovic at (504)219-4518 or email mlackovi@dhh.la.gov.

Federal Medical Stations Louisiana, 2006

Stacy Hall, RN MSN

A large natural disaster (such as the Gulf hurricanes of 2005) or widespread terrorism event can overwhelm the medical care delivery system in an affected area. This could occur through a surge beyond the local hospital capacity, a degradation of area hospitals or both. Federal Medical Stations (FMS), (the prototype of which was in process in Louisiana prior to August 2005) are a resource to provide surge capability throughout the nation.

The FMS was designed by the United States Department of Health and Human Services (DHHS) and is a recent mission assignment (May, 2006) for the Division of Strategic National Stockpile (DSNS). They require pre-planning and coordination between federal, state and local emergency planners and responders. FMS can be pre-positioned and configured to respond rapidly and effectively to all types of public health emergencies, from significant

incidents to large-scale catastrophic disasters. There are four types of FMS:

- Type I Advanced has the capability to care for severely ill or injured persons, the equivalent to a conventional operation room, ICU and basic laboratory.
- Type II Specialized is configured for specific clinical scenarios, such as respiratory isolation or burn and blast care. Prototypes remain in development.
- Type III Basic provides low to mid-level acuity of care and is a platform for DMAT teams, special shelters, quarantine function, alternate care facility to augment community hospital capability.
- Type IV FMS is a medical needs shelter.

A Type III Basic FMS has four modules. The basic support module includes fifty beds with a quarantine capability. The treatment module includes medical supplies and equipment for non-acute care and a pharmacy module. There are up to four expansion modules with fifty beds each.

The FMS can be transported by air or ground by the DSNS and can be quickly established in existing structures. It is recommended that FMS locate close to existing hospitals to provide definitive and supportive care. A FMS is dependent upon a facility that meets specific requirements. Preplanning and contingency agreements with facilities and firms could greatly ease FMS set up. A FMS is modeled to accommodate all age populations and includes a three day supply of resources. A FMS consists of these supplies and equipment only; clinical staff/personnel are provided separately by federal or state and local health care workers or volunteers.

The DSNS will send a FMS Team with any FMS deployment. They are prepared to guide a group of local volunteers in offload and setup of the FMS material. Pre-selection of sites with at least 40,000 square feet is encouraged. The FMS requires major support. This includes: power (preferably with backup), water/food and laundry services, medical-waste disposal, service for oxygen and portable toilets, restocking of commodities and equipment, transportation and emergency medical services resources, mortuary support, billeting for staff and security.

An area can adapt a FMS to help meet a wide range of mass medical care needs that might emerge in a disaster. In the aftermath of Hurricane Katrina in September of 2005, DHHS and DSNS took the program from prototype to reality almost overnight. Louisiana officials used what was then called a Federal Medical Contingency Station in Baton Rouge. The units the SNS deployed there were platforms for the provision of a more advanced level of care. Various public and private entities from nearby and also from out of state, co-located their mobile service modules with the FMS. These modules included a clinical laboratory, a radiological diagnostic facility, an intensive care unit and a surgical suite.

FMS have begun to address the nation's potential shortfall in all-hazard mass casualty care events. FMS deployed 3,500 beds in five locations in Mississippi, Florida and Louisiana for Hurricane Katrina. In Texas 2,000 beds were deployed for Hurricane Rita. For Hurricane Wilma 1,000 beds were staged at a DSNS warehouse. Future plans include analysis/reassessment of deployment during the hurricanes.

For more information, please contact Ms. Hall at (504) 568-2077 or email shall@dhh.la.gov.

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06/02

Vibrio:

Online CME-Approved Course for Physicians, 05/03 (*V. vulnificus*)
Vibrio Illnesses After Hurricanes Katrina and Rita – Louisiana,
August 29-October 15, 2005, 05/06
Vibrio, Summer and Seafood, 06/05

West Nile Virus:

Are Hunters at Increased Risk of Contracting West Nile Virus?, 05/02
Louisiana Arbovirus Surveillance History, 05/02
One-Year Sequelae in Patients with West Nile Virus Encephalitis and
Meningitis in Louisiana, 05/03
West Nile Virus Summary, 2002-2005, 06/04

Note: Year and Issue Number are listed after the comma on each line - 05/06 = Issue Number 6 (Nov-Dec) for the Year 2005

LOUISIANA COMMUNICABLE DISEASE SURVEILLANCE

September-October, 2006

Table 1. Disease Incidence by Region and Time Period

DISEASE	HEALTH REGION									TIME PERIOD				
	1	2	3	4	5	6	7	8	9	Sep-Oct 2006	Sep-Oct 2005	Jan-Oct Cum 2006	Jan-Oct Cum 2005	% Chg*
Vaccine-Preventable														
Hepatitis B Cases	1	1	1	2	0	0	0	2	0	7	9	56	64	NA*
Hepatitis B Rate ¹	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.3	0.7	1.3	NA
Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Mumps	0	0	0	0	0	0	0	0	0	0	0	2	7	NA*
Rubella	0	0	0	0	0	0	0	0	0	0	0	0	2	NA*
Pertussis	0	0	0	0	0	1	0	0	1	2	4	21	46	-54.3
Sexually-Transmitted														
HIV/AIDS Cases ²	9	11	1	6	2	2	9	4	2	46	129	698	883	-21.0
HIV/AIDS Rate ¹	0.9	1.9	0.3	1.1	0.7	0.7	1.8	1.1	0.5	1.1	3	16	20.2	NA
Gonorrhea Cases	202	151	36	132	50	53	156	69	60	909	548	8068	7728	4.4
Gonorrhea Rate ¹	19.5	25.0	9.4	24.1	17.6	17.6	29.9	19.5	13.7	20.3	12.3	180.5	172.9	NA
Syphilis (P&S) Cases	16	28	3	22	1	1	4	3	13	91	25	247	217	13.8
Syphilis (P&S) Rate ¹	1.5	4.6	0.8	4.0	0.4	0.3	0.8	0.8	3.0	2.0	0.6	5.5	4.9	NA
Enteric														
Campylobacter	0	0	1	6	0	0	0	1	3	11	12	87	103	-15.5
Hepatitis A Cases	0	0	1	8	0	0	0	0	1	10	9	25	57	-56.1
Hepatitis A Rate ¹	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.0	0.4	0.2	1.1	NA
Salmonella Cases	4	17	18	54	10	9	3	12	28	155	214	782	811	-3.6
Salmonella Rate ¹	0.2	1.8	4.8	7.6	3.7	3.3	0.6	2.8	7.3	3.0	6.0	8.9	13.8	NA
Shigella Cases	0	2	0	77	0	0	0	2	5	86	18	174	126	38.1
Shigella Rate ¹	0.0	0.2	0.0	4.5	0.0	0.7	0.0	0.9	0.5	0.7	1.0	1.9	2.5	NA
Vibrio cholera	0	0	0	0	0	0	0	0	0	0	2	3	2	NA*
Vibrio, other	0	0	1	1	0	0	0	0	1	3	16	25	43	-41.9
Other														
<i>H. influenzae (other)</i>	0	0	1	0	0	0	1	1	1	4	1	18	31	-41.9
<i>N. Meningitidis</i>	0	1	0	0	0	0	0	0	0	1	2	31	30	NA*

1 = Cases Per 100,000

2=These totals reflect persons with HIV infection whose status was first detected during the specified time period. This includes persons who were diagnosed with AIDS at time HIV was first detected. Due to delays in reporting of HIV/AIDS cases, the number of persons reported is a minimal estimate. Data should be considered provisional.

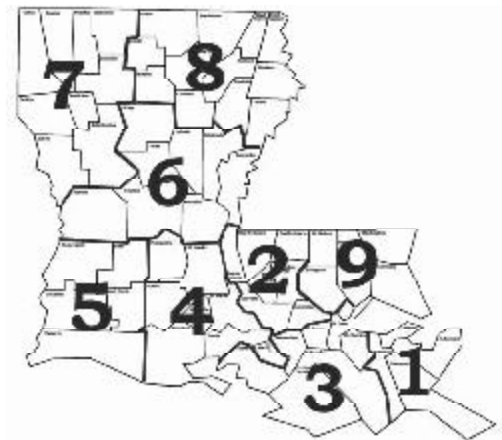
* Percent Change not calculated for rates or count differences less than 10

Table 2. Diseases of Low Frequency (January-October, 2006)

Disease	Total to Date
Legionellosis	10
Lyme Disease	0
Malaria	5
Rabies, animal	6
Varicella	173

Table 3. Animal rabies (September-October, 2006)

Parish	No. Cases	Species
Vernon	1	Bat
Ascension	1	Bat
St.Landry	1	Skunk



**Sanitary Code - State of Louisiana
Chapter II - The Control of Disease**

LAC 51:II.105: The following diseases/conditions are hereby declared reportable with reporting requirements by Class:

Class A Diseases/Conditions - Reporting Required Within 24 Hours

Diseases of major public health concern because of the severity of disease and potential for epidemic spread-report by telephone immediately upon recognition that a case, a suspected case, or a positive laboratory result is known; [in addition, all cases of rare or exotic communicable diseases, unexplained death, unusual cluster of disease and all outbreaks shall be reported.

Anthrax	Measles (rubeola)	Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV)
Avian Influenza	Neisseria meningitidis (invasive disease)	Smallpox
Botulism	Plague	<i>Staphylococcus Aureus</i> , Vancomycin Intermediate or Resistant (VISA/VRSA)
Brucellosis	Poliomyelitis, paralytic	Tularemia
Cholera	Q Fever (<i>Coxiella burnetii</i>)	Viral Hemorrhagic Fever
Diphtheria	Rabies (animal and human)	Yellow Fever
<i>Haemophilus influenzae</i> (invasive disease)	Rubella (congenital syndrome)	
Influenza-associated Mortality	Rubella (German measles)	

Class B Diseases/Conditions - Reporting Required Within 1 Business Day

Diseases of public health concern needing timely response because of potential of epidemic spread-report by the end of the next business day after the existence of a case, a suspected case, or a positive laboratory result is known.

Arthropod-Borne Neuroinvasive Disease and other infections (including West Nile, St. Louis, California, Eastern Equine, Western Equine and others)	Hemolytic-Uremic Syndrome	Pertussis
Aseptic meningitis	Hepatitis A (acute disease)	Salmonellosis
Chancroid ¹	Hepatitis B (acute illness & carriage in pregnancy)	Shigellosis
<i>Escherichia coli</i> , Shig-toxin producing (STEC), including <i>E. coli</i> 0157:H7	Hepatitis B (perinatal infection)	Syphilis ¹
Hantavirus Pulmonary Syndrome	Hepatitis E	Tetanus
	Herpes (neonatal)	Tuberculosis ²
	Legionellosis (acute disease)	Typhoid Fever
	Malaria	
	Mumps	

Class C Diseases/Conditions - Reporting Required Within 5 Business Days

Diseases of significant public health concern-report by the end of the workweek after the existence of a case, suspected case, or a positive laboratory result is known.

Acquired Immune Deficiency Syndrome (AIDS)	Gonorrhea ¹	Staphylococcal Toxic Shock Syndrome
Blastomycosis	Hansen Disease (leprosy)	Streptococcal disease, Group A (invasive disease)
Campylobacteriosis	Hepatitis B (carriage, other than in pregnancy)	Streptococcal disease, Group B (invasive disease)
Chlamydial infection ¹	Hepatitis C (acute illness)	Streptococcal Toxic Shock Syndrome
Coccidioidomycosis	Hepatitis C (past or present infection)	<i>Streptococcus pneumoniae</i> , penicillin resistant [DRSP], invasive infection]
Cryptococcosis	Human Immunodeficiency Virus (HIV Syndrome infection)	<i>Streptococcus pneumoniae</i> (invasive infection in children < 5 years of age)
Cryptosporidiosis	Listeria	Transmissible Spongiform Encephalopathies
Cyclosporiasis	Lyme Disease	Trichinosis
Dengue	Lymphogranuloma Venereum ¹	Varicella (chickenpox)
Ehrlichiosis	Psittacosis	Vibrio Infections (other than cholera)
Enterococcus, Vancomycin Resistant [(VRE), invasive disease]	Rocky Mountain Spotted Fever (RMSF)	
Giardia	<i>Staphylococcus Aureus</i> , Methicillin/Oxacillin Resistant[(MRSA), invasive infection]	

Class D Diseases/Conditions - Reporting Required Within 5 Business Days

Cancer	Heavy Metal (Arsenic, Cadmium, Mercury) Exposure and/or Poisoning (All ages)	Severe Traumatic Head Injury
Complications of Abortion	Lead Exposure and/or Poisoning (All ages)	Severe Undernutrition (severe anemia, failure to thrive)
Congenital Hypothyroidism ³	Pesticide-Related Illness or Injury (All ages)	Sickle Cell Disease (newborns) ³
Galactosemia ³	Phenylketonuria ³	Spinal Cord Injury
Hemophilia ³	Reye's Syndrome	Sudden Infant Death Syndrome (SIDS)

Case reports not requiring special reporting instructions (see below) can be reported by Confidential Disease Case Report forms (2430), facsimile, (504) 219-4522, telephone, (504) 219-4563, or web base at <https://ophrdd.dhh.state.la.us>.

¹Report on STD-43 form. Report cases of syphilis with active lesions by telephone.

²Report on CDC72.5 (f.5.2431) card.

³Report to the Louisiana Genetic Diseases Program Office by telephone at (504) 219-4413 or facsimile at (504) 219-4452.

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