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Louisiana Morbidity Report

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January-February 2007 **Volume 18 Number 1**

Health Threats from Rodent Infestation

Gary A. Balsamo, DVM MPH&TM

Rodent infestation may cause several problems, including contamination of food, damage to property and disease transmission. Rats can produce twelve to sixteen milliliters of urine and up to fifty fecal droppings in a twenty-four hour period. Gnawing of electrical cables is but one example of property damage that might result from the presence of rodents in buildings. Contamination of stored food with rodent feces or urine can transmit diseases to both humans and pets and can increase spoilage and render foods inedible. Rodent lice, mites and fleas can also infest other animals and, occasionally, people.

Worldwide, many rodent-transmitted diseases cause varying degrees of morbidity and mortality. The Centers for Disease Control and Prevention (CDC) lists several rodent-transmitted diseases important in the United States.

Hantavirus Pulmonary Syndrome is an often deadly disease transmitted by rodents through urine, feces, or saliva. There are more than twenty-five antigenically different viral species of hantavirus, each associated with a single rodent species. The cotton rat (*Sigmodon hispidus*) and the rice rat (*Oryzomys palustris)* have been the rodents implicated in cases in Louisiana and the southeastern United States. Humans can contract the disease after inhalation of dried, aerosolized secretions. Although a rare disease (Since 1959 less than 400 cases have been reported in the U.S. and Canada.) the severity of the condition underscores reason for concern. The mortality rate for Hantavirus Pulmonary Syndrome is thirty-eight percent. The best prevention of exposure is rodent control in and around the home.

Murine typhus, a rickettsial infection caused by *Rickettsia typhi*, is a disease that occurs worldwide and is transmitted to humans by rat fleas. In some areas peridomestic cycles involving cats, dogs, opossums and their fleas may exist. The disease is more common in summer months, but in warmer climes the condition can occur year round. In the United States, most cases have been reported from California, Hawaii, southern Texas and the Gulf Coast. Symptoms of the disease often include headache, myalgia and rash and seldom last longer than two weeks. The disease is often mild, but untreated severe cases can be fatal. Rat infested buildings and homes, especially in port cities or in riverine environments, often serve as havens for rats harboring fleas.

Rat-bite fever is a systemic bacterial illness that is most often transmitted to humans through a bite or scratch. One might also acquire the disease through ingestion of food or water contaminated with rat feces. The etiologic agents are *Streptobacillus moniliformis* and *Spirillum minus.* Possible symptoms include fever, chills, muscle pain, vomiting, headache, rash and adenopathy. In approximately fifty percent of patients, the disease progresses to a non-suppurative polyarthritis or arthralgia. Occasionally solid organ abscesses, pneumonia, endocarditis, myocarditis, or meningitis occur. The case fatality rate of rat-bite fever in untreated cases is approximately seven to ten percent.

Leptospirosis is a disease caused by *Leptospira* bacteria transmitted in the urine of infected rodents. Both pathogenic and non-pathogenic leptospires exist. Infection can be asymptomatic or can cause a range of symptoms. Mild cases exhibit headache, fever, abdominal pain, diarrhea and/or rash. More severe cases may experience kidney damage, meningitis, liver failure, or respiratory distress. These infections are rarely fatal. Many wild and domestic animal species in addition to rodents act as reservoirs and may transmit the disease.

Eosinophilic meningitis sometimes results from infection of the brain with larval stages of the rat lungworm, *Angiostrongylus cantonensis.* The intermediate hosts of these rat parasites are terrestrial and aquatic snails and slugs. Examples of paratenic hosts, (hosts in which no development occurs but in which infectious stages of the parasite can be accumulated), are fish, amphibians, reptiles, crustaceans and land planarians. Vegetables may also accumulate infectious larva. Persons may become infected by ingesting snails, raw or improperly cooked paratenic hosts, or foods (especially salad greens) contaminated by slugs or snails. Some infections are asymptomatic; some victims experience mild symptoms of

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fairly short duration, but occasionally a fulminate eosinophilic meningitis, with headache, nuchal rigidity, paresthesia, low-grade fever, nausea and vomiting results. In some cases these symptoms may persist for weeks or months.

Several bacterial infections have been transmitted by rodents to humans through consumption of contaminated food or water. Usually these infections do not cause severe consequences, although infection can be characterized by diarrhea, abdominal cramps, vomiting, and nausea. However, in persons with reduced immunity, including the elderly and the very young, some infections may be fatal. *Salmonella enterica* serovar *Typhimurium* is an example of one such bacterium. Listeriosis may also be transmitted by a number of rodent species.

Rodents have also been implicated in the transmission of several other helminths and scores of bacterial, rickettsial, protozoal and viral infections around the globe. Control of rodents and elimination of infestations should reduce the chance of exposure to the above diseases and minimize risk of infection with the aforementioned agents.

For more information, please contact Dr. Balsamo at (504) 219-4593 or email gbalsamo@dhh.la.gov.

Announcements

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

ANTIBIOTIC SENSITIVITY: Antibiogram Comparison 2003-2004
ANNUAL REPORT/ INFECTIOUS DISEASE SURVEILLANCE REPORTS: Arthropod-borne Encephalitis, Chlamydia, Eastern Equine Encephalitis, HIV/AIDS, Influenza, Pertussis, St. Louis Encephalitis, Tuberculosis, West Nile Encephalitis (Neuro-Invasive Disease)
BT MANUAL: Generic BT Questionnaire
EPIDEMIOLOGY MANUAL: Clostridium, Clostridium Difficile, Clostridium Perfringens, Enterococcal Infections, Food Poisoning Fish, Foodborne Outbreak Investigation, Generic Questionnaire, Hepatitis B, Meningitis, Molluscum Contagiosum, Pediculosis, Pertussis, Rotavirus
LINKS/New Pages: Foodborne Diseases, Infection Control, Veterinary Information
LOUISIANA MORBIDITY REPORT: 1984-1989

FET I & II

The Infectious Disease Epidemiology Section will repeat the Field Epidemiological Techniques I and II classes on March 6-7, 2007. This training will be targeted towards sanitarians, public health nurses, infection control professionals, disease surveillance specialists, epidemiologists, laboratory workers, health care providers and other public health care professionals interested in epidemiological principles and outbreak investigations. This workshop will take place in New Orleans and is free of charge although registration is required. There is a separate registration form for each day. For information, agendas and registration forms please go on-line to *http://www.dhh.louisiana.gov/offices/page.asp?id =249&detail=7560 or email rroberts@dhh.la.gov; phone (504)219-4548,*

Pandemic Influenza Preparedness – Louisiana

Julie Hand, MSPH

An effective response to pandemic influenza will depend on existing relationships and planning with community partners. To better cultivate these relationships all nine public health regions within Louisiana are hosting one-day tabletop exercises for pandemic influenza preparedness.

Each exercise will be conducted with external partners including hospitals, schools and emergency managers. A pandemic influenza scenario will generate discussions and examine planning and preparedness activities to identify any gaps.

The first exercise was in Region 5 (Lake Charles area) on December 5, 2006. All exercises will be completed by the beginning of February 2007.

Breastfeeding Trends in Louisiana: Are We Improving?

Dionka C. Pierce, MPH; Ashley C. Chin, PhD MPH MA;
Tri Tran, MD MPH

Background

Breastfeeding is universally recognized as the optimal method of infant feeding. Its benefits, to both mother and child, are well documented. The national breastfeeding rates steadily increased from 1998-2003. Louisiana however, despite the efforts of public health leaders, has the lowest prevalence of breastfeeding initiation rates among all states participating in the Pregnancy Risk Assessment Monitoring System (PRAMS). In order to determine whether Louisiana breastfeeding rates are improving, Maternal and Child Health (MCH) epidemiologists analyzed PRAMS data from the years 1998 through 2003.

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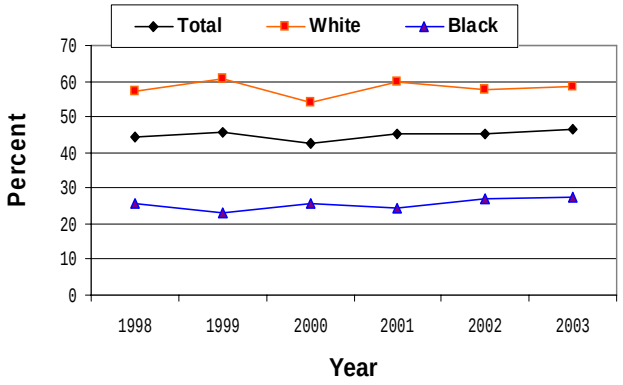
Methods

Initial data analysis included determining the number of White and Black women breastfeeding in the early postpartum period and at six months postpartum. A one-sided test, Kendall's Tau b, was used to determine whether there was a significant trend over the six-year period, using SAS-callable SUDAAN 9.0. Alpha was set at 0.05 for statistical significance. Results were presented overall and stratified by race.

Results

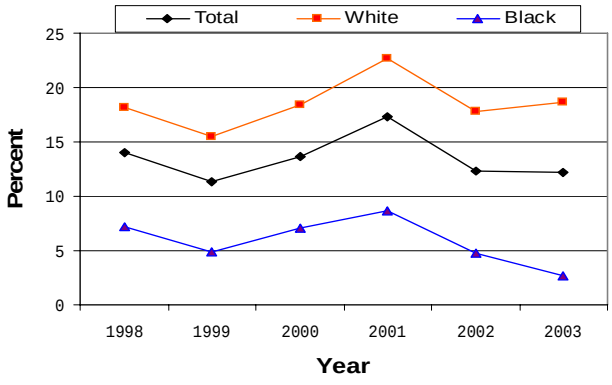
From 1998 through 2003, the percent of the total new mothers initiating breastfeeding, ranged from forty-two percent to forty-six percent (54%-61% among Whites and 23%-27% among Blacks). (Figure 1)

Figure 1: Breastfeeding initiation by maternal race Louisiana, 1998-2003



There was no significant trend in breastfeeding initiation over the six-year period (p=0.13 overall). However, when stratified by race, there was a significant increase among Blacks (p= 0.05). The percent of the total women breastfeeding at six months ranged from eleven percent to seventeen percent (15%-23% among Whites and 3% to 9% among Blacks). (Figure 2)

Figure 2: Breastfeeding at six months by maternal race Louisiana, 1998-2003



There was no significant trend in breastfeeding at six months postpartum, overall or stratified by race (p=0.29).

Conclusion and Discussion

Overall, there was neither a significant improvement in the percent of women initiating breastfeeding, nor was there a significant improvement in the percent of women continuing to breastfeed for six months. There was a small but significant increase in initiation among Blacks over the study period.

The Healthy People 2010 goals for breastfeeding in the early postpartum period are seventy-five percent and fifty percent at six months. If the current trend continues, Louisiana will fail to meet these goals. The consequences of not increasing breastfeeding rates in this state could lead ultimately to the following: increased health care costs due to the higher rate of infection among non-breastfed infants; lower IQ for infants; increased maternal risks of breast, uterine and endometrial cancers; increased maternal risk of osteoporosis; increased risk of maternal and infant obesity. To affect change in this critical area of need, policy change, combined with intervention programs, is suggested.

For more information or references, please contact Dionka Pierce at (504) 219-4617 or email dpierce@dhh.la.gov.

Staphylococcal Disease

Methicillin Resistant Staphylococcus aureus (MRSA) invasive disease is a reportable form of staphylococcal infection. This is a Class C Disease and must be reported to the state within five business days.

Staphylococcus aureus is a bacteria that causes a wide variety of localized and invasive infections as well as three toxin-mediated syndromes including food poisoning. In addition to the myriad of ways this bacteria manifests itself in disease, staphylococcus is extremely prevalent in the general population; about thirty percent of all healthy adults and children are colonized, usually in the nose. (A colonized person is not infected with the bacteria but is carrying the bacteria.) Hospitals continually battle the methicillin-resistant strains of *S. aureus*, responsible for many hospital acquired infections. Every year, some staphylococcal infections result in death.

Due to the concern about antibiotic resistance in micro-organisms and the prevalence of staphylococcal infections, many requests for information about these organisms are addressed by the Office of Public Health - Infectious Disease Epidemiology Section (IDES).

Colonization by MRSA:

Surveys carried in different populations not connected with health care settings have shown prevalences of colonization ranging from one percent to six percent. A prevalence study was carried out by OPH in Louisiana in 2004. A sample of 400 individuals including offices workers, college students and parents at well baby clinics was selected. These individuals had no connection with health care settings (no recent or chronic disease, no family members with frequent contacts with medical care). Among this sample only one percent was found to be colonized with MRSA.

MRSA infections in the community:

Although the actual prevalence of community-acquired MRSA infections cannot be accurately determined at this time, it has been

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estimated that up to forty percent of adult cases may be acquired outside the hospital setting.

In 1998, MRSA infections became reportable to OPH. The number of cases reported (mostly from hospital among in and out-patients increased from 860 in 1,998 to almost 5,000 in 2001. At that time it became obvious that MRSA infections were so frequent that reporting had become widely inaccurate. Reporting was then limited to invasive MRSA (MRSA isolated in sterile sites, excluding MRSA skin infections and abscesses).

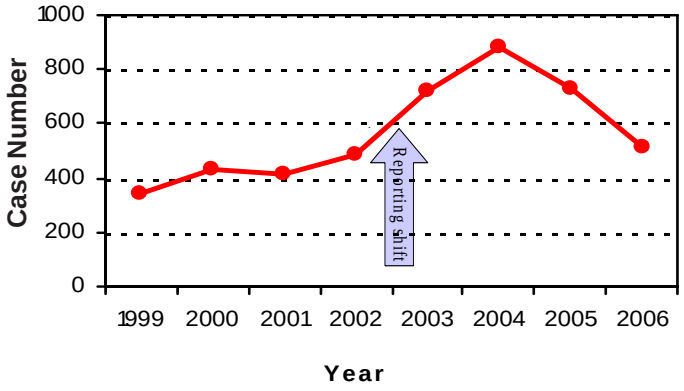
Blood stream infections and CSF are the most common sites for invasive MRSA infections. The curve showed a sudden increase in 2003 at the time of the change in reporting. Before 2003 the number of cases was approximately 400; after 2003, the numbers increased to the 700 to 800 range. This sudden increase is most certainly an artifact. Hospitals that had too many cases of MRSA had stopped reporting. Restricting the reporting to invasive disease, convinced them to restart reporting. (Table 1 and Figure 1)

Table 1: MRSA Invasive disease – Louisiana, 1999-2006

Year	Blood	CSF
1999	342	4
2000	431	6
2001	416	4
2002	489	6
2003	723	10
2004	882	5
2005	732	7
2006	513*	3

*partial data

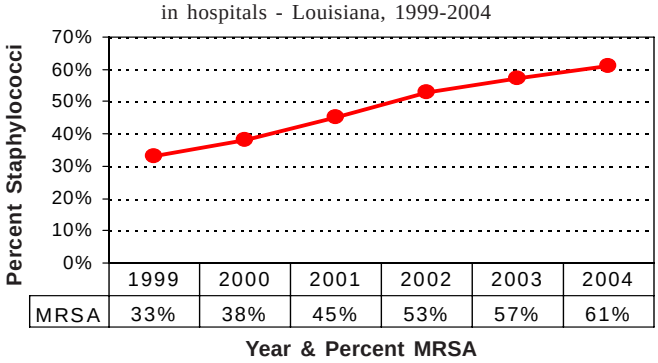
Figure 1: Number of MRSA blood stream infections Louisiana, 1999-2006



MRSA infections in health care:

In the past thirty years MRSA has progressively become more and more common in health care facilities. Nowadays MRSA is the predominant strain of *Staphylococcus aureus* isolated among hospital patients and among staphylococcal hospital acquired infections. (Figure 2)

Figure 2: Proportion of MRSA among Staphylococci isolated in hospitals - Louisiana, 1999-2004



Risk factors for infection with MRSA in health-care settings include prolonged hospital stay, exposure to multiple or prolonged broad-spectrum antimicrobial therapy, stay in an intensive care or burn unit, proximity to patients colonized or infected with MRSA, use of invasive devices, surgical procedures, underlying illnesses and MRSA nasal carriage.

Mortality:

One question that often arises regards trends in the mortality related to staphylococcal infections e.g. "Are more deaths being attributed to invasive staphylococcal infections?"

In order to better respond to these queries, all of the death certificates issued between 1999 and 2003 in Louisiana were sorted and analyzed using Microsoft Access®. The death certificates were sorted based on the causes of death listed. The causes of death are coded according to the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10). Specifically, ICD-10 provides codes for cutaneous abscesses, pneumonias due to staphylococcus, septicemias due to staphylococcus and unspecified staphylococcal infections.

Table 2: Crude mortality numbers resulting from causes of death Louisiana, 1999-2004

Death Name	Total	99	00	01	02	03	04
Cutaneous abscess, furuncle and carbuncle	17		2	5	2	6	2
Pneumonia due to staphylococcus	82	21	18	12	8	13	10
Septicaemia due to *Staphylococcus aureus* or other	135	28	24	17	21	24	21
Staphylococcal infection, unspecified	27	10	1	3	6	5	2

The data provided by death certificates issued in Louisiana between 1999 and 2004 provide no evidence that mortality resulting from invasive staphylococcal infections has been increasing in Louisiana. Although the mortality has been consistent for the past five years, the IDES will continue monitoring the causes of death attributable to staphylococcal infections in order to detect changes in this trend.

Maternal Mortality Review Louisiana, 1996-2004

Folorunso Akintan, MD MPH; Nicole Richmond, MPH; Tri Tran, MD MPH

Introduction

One goal of the Department of Health and Human Services is to reduce maternal mortality by half by the year 2010. Identifying the major causes, timing and trends of maternal death helps the Louisiana Maternal and Child Health Program create public health strategies to reduce these deaths in Louisiana.

In this report maternal mortality is defined as pregnancy associated deaths, which is the death of a woman, from any cause, while pregnant or within one calendar year of live or still-birth, regardless of the duration and the site of pregnancy per 100,000 live births. There are two subgroups of pregnancy associated deaths: pregnancy-related (death from any cause related to or aggravated by pregnancy or its management) and non pregnancy-related (deaths due to a cause unrelated to pregnancy).

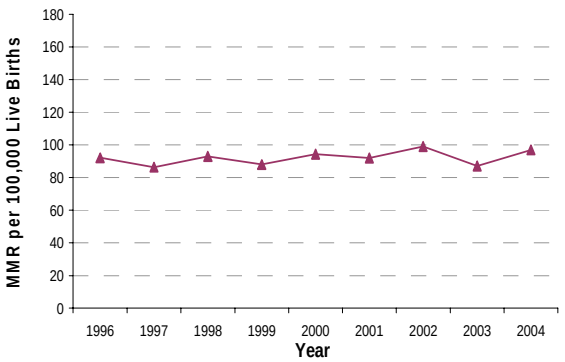
Method

The study population for this report included pregnant women who had live births or fetal deaths and women who died during pregnancy. Mother's social security number, race, date of birth and name were used to link birth and fetal death records with maternal death certificates data from 1995 to 2004. One sided log-linear regression was used to analyze maternal mortality trend from 1996 to 2004. Major causes and timing of maternal deaths were determined using 2000 to 2004 linked maternal death/birth/fetal death records data. SAS 9.0 was used for the analysis and statistical significance. Alpha value was set at 0.05.

Result

There was no statistically significant change in trend of maternal mortality for all races in the period from 1996 to 2004 in Louisiana (p-value 0.147, Figure 1).

Figure 1: Trend of maternal mortality rates - all races Louisiana, 1996 to 2004



Among pregnancy-associated deaths from 2000 to 2004, pregnancy-related deaths accounted for fifteen percent of deaths while non-pregnancy related deaths accounted for eighty-five percent.

About twenty-five percent of these deaths occurred during pregnancy, another twenty-five percent within the first forty-two days of delivery (puerperium), nine percent occurred from seven weeks to three months, fourteen percent from four months to six months and twenty-seven percent from seven months to one year after delivery.

As shown in Table 1, the five leading causes of maternal death are motor vehicle accidents (17% of total deaths), assault (homicide) by discharge of firearms and other unspecified means (15%), accidental poisoning and exposure to noxious substance (7%), eclampsia or pre-eclampsia (4%) and indirect obstetric causes (3%).

Table 1: Classifications – causes of maternal mortality Louisiana, 2000 to 2004

Classification of Maternal Mortality	**Number (%)**	**MMR (95% CI)**
Pregnancy Related Deaths	53 (15.3)	13.4 (9.8,17.1)
Pregnancy Unrelated Deaths	293 (84.7)	74.3 (65.8,82.8)
Pregnancy Associated Deaths	346 (100.0)	87.5 (78.3,96.7)
Five Leading Causes of Maternal Mortality		
Motor Vehicle Accidents	57 (16.5)	14.4 (10.7,18.2)
Assault (Homicide) by discharge of firearm (37) and by other (13)	50 (14.5)	12.7 (9.2,16.2)
Accidents poisonings & Exposure to Noxious Substances	24 (6.9)	3.3 (1.5,5.1)
Eclampsia & Pre-eclampsia	12 (3.5)	3.0 (1.3,4.7)
Indirect Obstetric Causes*	10(2.9)	2.5 (0.9,4.1)

** Defined as other diseases including infections and parasitic diseases classifiable elsewhere but complicating pregnancy, childbirth and puerperium*

However, when the various causes of maternal deaths are grouped, the five leading groups are: External causes of death (includes death from all forms of accidents) 163 (47%); Deaths due to pregnancy complications within the puerperal period - fifty-three (15%); Cardiovascular diseases -forty-four (13%); Neoplasms - twenty-three (7%); Respiratory diseases - thirteen (4%).

Conclusion

The main cause of pregnancy associated deaths is accidents (intentional or unintentional). Other causes of death include deaths due to pre-existing or pregnancy exacerbated diseases such as cardiovascular diseases.

Public Health Implications

1) Innovative prevention programs are necessary to educate pregnant and postpartum women on safer ways of driving.

2) Violence prevention programs should target pregnant and postpartum women as vulnerable populations.

3) It is also important to emphasize overall health for women of reproductive age in Louisiana. This is likely to ultimately reduce maternal deaths from diseases exacerbated by pregnancy.

For more information, please contact Dr. Akintan at Fakintan@dhh.la.gov or (504) 219-4574.

31st Annual Convocation of Southern State Epidemiologists (CSSE) - New Orleans - December 4-6, 2006

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Influenza and Pneumococcal Vaccination Coverage Among Older Adults Louisiana, 2004-2005

Excerpted from MMWR - October 6, 2006 / 55(39);1065-1068

One of the *Healthy People 2010* objectives is to achieve ninety percent coverage of noninstitutionalized adults aged older than sixty-five years for both influenza and pneumococcal vaccinations. In the United States during the 1990-1999 influenza seasons, approximately 36,000 deaths were attributed annually to influenza infection, with approximately ninety percent of deaths occurring among adults aged older than sixty-five years. In 1998, an estimated 3,400 adults older than sixty-five years died as a result of invasive pneumococcal disease.

To assess progress, vaccination coverage was examined for persons interviewed in the 2004 and 2005 Behavioral Risk Factor Surveillance System (BRFSS) surveys. BRFSS is an ongoing, state-based, random-digit-dialed telephone survey of the U.S. civilian, noninstitutionalized population aged older than eighteen years. All fifty states, the District of Columbia (DC), and three U.S. territories participate in surveys. In 2004 and 2005, respondents were asked, "During the past 12 months, have you had a flu shot?" and "Have you ever had a pneumonia shot?"

From 2004 to 2005, influenza vaccination coverage decreased in every state and territory surveyed. During the first six months of 2004, 73.8% ± 1.0 of respondents older than sixty-five years of age reported having received influenza vaccine, compared with 64.0% ± 0.9% of respondents older than sixty-five years of age in the first six months of 2005. Nationally, the median influenza vaccination coverage declined 12.0% from 2004 to 2005. This decline is attributed to a vaccine shortage and a lack of a centralized system to manage information on vaccine ordering and receipt.

For those that responded within Louisiana concerning the flu shot, there was a 9.0% decrease in coverage between the years 2004 to 2005, 68.6% ± 2.6% in 2004 and 62.4% ± 4.4% in 2005). Only three states had a higher percentage of decrease than Louisiana, Florida (-14.6%), Illinois (-14.6%), and Missouri, (-10.7%); Florida (65.1 in 2004, 55.6 in 2005), Illinois (65.4 in 2004 and 55.9 in 2005), Missouri (69.1 in 2004 and 61.7 in 2005). At the other end of the scale was Minnesota, -0.1 % (78.3 in 2004, 78.2 in 2005) and Washington, -0.2% (67.9 in 2004, 67.8 in 2005).

From 2004 to 2005, national pneumococcal vaccination coverage remained relatively unchanged (63.4% ± 0.7% in 2004 and 63.7% ± 0.6% in 2005). Three states showed a statistically significant increase in pneumococcal vaccination rates while one state showed a significant decrease.

For those that responded within Louisiana concerning the pneumonia shot, there was a 5.9% increase between the years 2004 to 2005, (67.4% ± 2.7% in 2004 and 71.4% ± 3.8% in 2005). Only five states (Alaska, Kansas, Kentucky, Michigan and Virginia) showed higher percentage increases in pneumococcal vaccination coverage.

Both influenza and pneumococcal vaccination levels among adults older than sixty-five years remain below the *Healthy People 2010* objective of ninety percent coverage and continued measures are needed to increase the proportion of older adults who receive influenza and pneumococcal vaccines. Possible measures include: health-care providers offering pneumococcal vaccine all year; continuing to offer influenza vaccine during December and throughout the influenza season, even after influenza activity has been documented in the community; administering influenza and pneumococcal vaccinations during the same visit.

LOUISIANA COMMUNICABLE DISEASE SURVEILLANCE

November - December, 2006

Table 1. Disease Incidence by Region and Time Period

HEALTH REGION TIME PERIOD

DISEASE		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	0	1	0	3	0	0	1	0	1	6	7	67	71	-5.6
	Rate[1]	0.0	0.2	0.0	0.6	0.0	0.0	0.2	0.0	0.3	0.1	0.2	1.6	1.6	NA
Measles		0	0	0	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	1.0	2.0	8.0	-75.0
Rubella		0	0	0	0	0	0	0	0	0	0	0.0	0.0	2.0	NA
Pertussis		0	0	0	0	0	0	0	0	0	0	5	21	51	-58.8
Sexually-Transmitted															
HIV/AIDS	Cases[2]	14	13	0	2	1	4	2	3	1	40	119	860	1002	-14
	Rate[1]	1.4	2.3	0.0	0.4	0.4	1.3	0.4	0.9	0.2	0.9	2.7	19.7	22.9	NA
Gonorrhea	Cases	208	166	48	146	30	62	121	93	51	925	1936	9598	9664	-66.0
	Rate[1]	20.1	27.5	12.5	26.6	10.6	20.6	23.2	26.3	11.6	20.7	43.3	214.8	216.2	NA
Syphilis (P&S)	Cases	17	20	0	10	0	2	3	2	9	63	67	319	287	32.0
	Rate[1]	1.6	3.3	0.0	1.8	0.0	0.7	0.6	0.6	2.1	1.4	1.5	7.1	6.4	NA
Enteric															
Campylobacter		0	1	1	1	0	1	0	0	0	4	13	100	116	-13.8
Hepatitis A	Cases	0	0	0	6	1	1	0	0	0	8	8	38	65	-41.5
	Rate[1]	0.0	0.0	0.0	1.2	0.4	0.3	0.0	0.0	0.0	0.2	0.2	0.9	1.5	NA
Salmonella	Cases	12	0	10	22	0	3	0	9	13	69	98	1000	909	-10.0
	Rate[1]	1.2	0.0	2.7	4.3	0.0	1.0	0.0	2.6	3.4	1.6	2.3	23.2	21.1	NA
Shigella	Cases	0	1	1	8	0	0	0	1	2	13	12	195	138	41.3
	Rate[1]	0.0	0.2	0.3	1.6	0.0	0.0	0.0	0.3	0.5	0.3	0.3	4.5	3.2	NA
Vibrio cholera		0	0	0	0	0	0	0	0	0	0	0	3	2	NA
Vibrio, other		0	0	1	0	0	0	0	0	0	1	5	27	48	-43.8
Other															
H. influenzae (other)		0	0	0	0	0	0	0	0	0	0	5	19	36	-47.2
N. Meningitidis		0	0	1	0	0	0	0	0	0	1	3	33	33	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

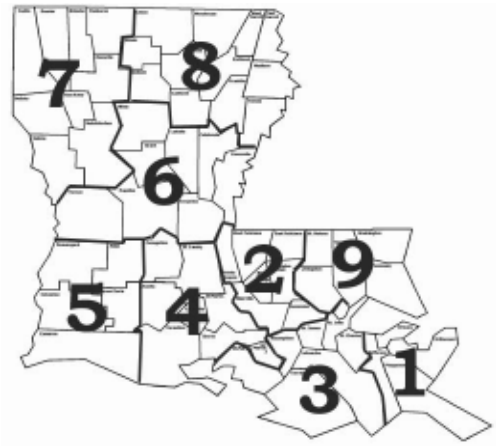

Table 2. Diseases of Low Frequency (January-December, 2006)

Disease	Total to Date
Legionellosis	10
Lyme Disease	0
Malaria	7
Rabies, animal	7
Varicella	193

Table 3. Animal rabies (November-December, 2006)

Parish	No. Cases	Species
Calcasieu	1	Bat

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

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)
Aseptic meningitis
Chancroid[1]
Escherichia coli, Shig-toxin producing (STEC), including *E. coli* 0157:H7
Hantavirus Pulmonary Syndrome
Hemolytic-Uremic Syndrome
Hepatitis A (acute disease)
Hepatitis B (acute illness & carriage in pregnancy)
Hepatitis B (perinatal infection)
Hepatitis E
Herpes (neonatal)
Legionellosis (acute disease)
Malaria
Mumps
Pertussis
Salmonellosis
Shigellosis
Syphilis[1]
Tetanus
Tuberculosis[2]
Typhoid Fever

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

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

Cancer
Complications of Abortion
Congenital Hypothyroidism[3]
Galactosemia[3]
Hemophilia[3]
Heavy Metal (Arsenic, Cadmium, Mercury) Exposure and/or Poisoning (All ages)
Lead Exposure and/or Poisoning (All ages)
Pesticide-Related Illness or Injury (All ages)
Phenylketonuria[3]
Reye's Syndrome
Severe Traumatic Head Injury
Severe Undernutrition (severe anemia, failure to thrive)
Sickle Cell Disease (newborns)[3]
Spinal Cord Injury
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.*
[1]Report on STD-43 form. Report cases of syphilis with active lesions by telephone.
[2]Report on CDC72.5 (f.5.2431) card.
[3]Report to the Louisiana Genetic Diseases Program Office by telephone at (504) 219-4413 or facsimile at (504) 219-4452.

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