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Louisiana Morbidity Report

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One-Year Sequelae in patients with West Nile Virus Encephalitis and Meningitis in Louisiana

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The unabridged article can be found in the Journal of the Louisiana State Medical Society Vol 157, January-February 2005.

West Nile Virus (WNV) infection used to result in mild indolent symptoms and a fever, but since the 1950's, the severity of illness has worsened. Recent observations in Europe and New York City show a shift to disease that is more neuroinvasive with complications such as meninigitis and encephalitis. With this shift, it appears that one-year sequelae are associated with severe infection. The results of this study reveal that there are, indeed, important one-year sequelae associated with West Nile infection.

Not much is known about the one-year sequelae following a complicated WNV infection. From July to December 2002, the first large outbreak of WNV in the Southern United States occurred in Louisiana. During this epidemic, 329 cases of WNV infection were identified. Among the cases, 204 cases were complicated by neuroinvasive disease, such as meningitis and encephalitis and 125 cases were the more mild and indolent form, West Nile fever. One year later, during the fall of 2003, a telephone survey was conducted to understand the one-year effects of severe WNV infections. WNV case fatality rate was 19.6%. Death certificates of all the deceased were reviewed to verify the mortality rate from WNV infection. The telephone survey revealed that one-year sequelae from severe WNV infections are common and can affect the body and mind including

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Region IX Childhood Obesity Study

Julie Hand, MSPH; Denise Harris, M. Ed. LDN RD

Region IX is located in southeastern Louisiana on the north side of Lake Pontchartrain and consists of five parishes - St. Tammany, Washington, Tangipahoa, St. Helena and Livingston - whose total population, according to the 2000 census is 438,121. In the fall of 2003, a childhood obesity case-control study was conducted in the Region IX WIC sites. (WIC is a federally funded special supplemental nutrition program for women, infants and children.) These sites include seven public health units: Franklinton, Bogalusa, Slidell, Hammond, Amite, Livingston, Greensburg; and three contract sites: Slidell Memorial Hospital, St. Tammany Parish Hospital Community Wellness Center, Denham Springs.

Background

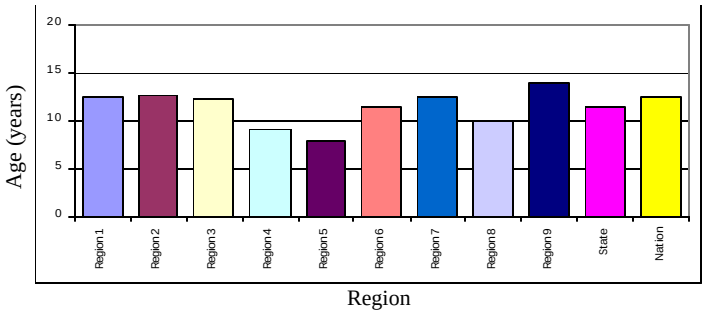
Obesity is increasing rapidly throughout the United States across all ages and races. It is a risk factor for many of the leading chronic diseases that lead to premature death. Children are being diagnosed at alarming rates with diabetes and hypertension related to obesity. According to a study in *Obesity Research*, Louisiana ranked eighth in the nation in obesity, was among the top six states in total obesity-related medical expenditures and was in the top six states in Medicaid obesity-related expenditures. The estimated total amount of obesity expenditures in Louisiana in 2003 was nearly 1.4 billion dollars and the estimated amount of Louisiana Medicaid obesity expenditures in 2003 was 525 million.

Almost one in three Louisiana school-aged children is overweight (BMI > 85%) or obese (BMI $\geq$95%). Body Mass Index (BMI) is currently the most accepted measurement to classify childhood obesity in children greater than two years old. (BMI is determined as follows: (Weight in pounds/Height in inches/Height in inches) x 703. Normal weight for children is anywhere between 5% and 85% for their age; ideal body weight is 50% for age. Overweight children have a BMI >85% but <95% and obese children are $\geq$ 95% for age.)

According to 2000 data reported by the Centers of Disease Control and Prevention (CDC) Pediatric Nutritional Surveillance System (PedNSS) five of the nine public health regions in the state had an equal or higher percentage of overweight children in their WIC programs than the national average as shown in Figure 1.

(Continued on next page)

Figure 1: Prevalence of Overweight among children < five years of age by region – Louisiana, 2003



As obese children in Louisiana become adults, we can expect them to exert an increasing burden on an already overextended public health system. Childhood obesity is a public health problem on its way to becoming a crisis, especially in Louisiana.

Methods & Results

A total of 1051 charts were reviewed for this study, 638 cases (overweight or obese children) and 413 controls (children of normal weight); information on sixty-one variables was collected. All data analysis was conducted using SPSS. Subjects were identified using the coding system of PASPORT, an internal OPH database. All subjects had visited one of the Region IX WIC clinics between January 1, 2000 and December 31, 2002. The ages of the children ranged from one to five years. (Table 1)

Table 1: Region IX obese WIC participants as coded in PASPORT Louisiana, 2003

WIC Site	% Obese	Parish	% Obese
Franklinton HU	13.4	Washington	13.8
Bogalusa HU	14.1		
Slidell Memorial	9.1		
St. Tammany Wellness	4.9	St. Tammany	12.4
Slidell HU	20.2		
Hammond HU	14.2	Tangipahoa	13.5
Amite HU	12.4		
Livingston HU	23.7	Livingston	17.7
Denham Springs	6.6		
Greensburg HU	13.0	St. Helena	13.0

Tables 2a, 2b and 2c show the frequencies of demographic variables by weight categories: overweight, obese and normal.

Table 2a: Study population descriptives – sex -Louisiana, 2003

	Normal	Overweight	Obese	Total
Male	207 (50.1%)	99 (43.8%)	235 (57%)	541(51.5%)
Female	206 (49.9%)	127 (56.2)	177 (43.0%)	541 (48.5%)
Total	413 (39.3%)	226 (21.5%)	412 (39.2%)	1051 (11%)

Table 2b: Study population descriptives – race -Louisiana, 2003

	Normal	Overweight	Obese	Total
White	238 (57.6%)	119 (52.7%)	235 (57%)	592(56.3%)
Black	163 (39.5%)	101 (44.7)	166 (40.3%)	430 (40.9%)
Hispanic	10 (2.4%)	4 (1.8%)	11 (2.7%)	25 (2.4%)
Asian	2 (0.5%)	2 (0.9)	-	4 (0.4%)
Total	413 (39.3%)	226 (21.5%)	412 (39.2%)	1051 (11%)

Table 2c: Study population descriptives by age, Louisiana, 2003

	Normal	Overweight	Obese	Total
Mean age	2.29	2.64	2.19	2.33
Total	413 (39.3%)	226 (21.5%)	412 (39.2%)	1051 (11%)

Tables 3 and 4 demonstrate the distribution of weight variables in cases and controls. The children less than two years old are separated from those greater than two because using BMI in children less than two years of age is not common practice. To be able to compare cases and controls across all ages, the variables of BMI and weight were converted to percentiles using CDC growth charts.

Table 3: Weight variables *subjects ≥2 years old*

Subject Status	Variables	N	Min	Max	Mean	Std. Dev.
Case	BMI	319	16.0	26.1	18.8	1.5
	Percentile	319	85	95	92.1	3.6
Control	BMI	250	13.9	18.0	16.0	0.9
	Percentile	250	5	75	39.2	19.4

Table 4: Weight variables *subjects <2 years old*

Subject Status	Variables	N	Min	Max	Mean	Std. Dev.
Case	Weight*	319	19.8	44.0	27.8	3.7
	Percentile	319	85	97	94.8	3.0
Control	Weight*	163	18.3	31.8	23.5	2.8
	Percentile	163	5	75	50.4	20.9

Table 5 shows the odds ratios and confidence intervals of the categorical variables collected based on subject status (case vs. control). As is evident in the table, no odds ratios are significantly elevated and all confidence intervals include one. This indicates that none of the variables shown have any association with whether a subject is obese or of normal weight in this study.

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Table 5: Data analysis of categorical variables

Variable	N	OR	CI
Breastfeeding (yes/no)*	792	1.04	(0.75, 1.44)
WIC Site (public/contract)	1051	1.29	(0.98, 1.70)
Delivery (pre-term, full term)**	814	0.83	(0.53, 1.33)
Birthweight (low/normal)***	973	0.56	(0.36, 0.89)
Medicaid (yes/no)****	1050	1.22	(0.92, 1.62)
Food Stamps (yes/no)****	1050	1.06	(0.83, 1.36)
LaCHIP (yes/no)****	1049	0.52	(0.32, 0.85)
FITAP (yes/no)****	1050	1.29	(0

*If subject was ever breastfed
**Pre-term defined as < 37 weeks
***Low birthweight defined as < 2,500 grams
****If subject was ever on Medicaid LaCHIPS, received food stamps or welfare

Table 6 shows the data analysis for continuous variables based on subject status (case vs. control).

Table 6: Data analysis of continuous variables

Variable	N	T-stat	p-value	Result	eta^2
Age	1051	0.86	0.40	$\mu=\mu$	-
Percentile	1051	48.5	<0.00	$\mu\neq\mu$	-
Gestation	814	1.26	0.21	$\mu=\mu$	-
Birthweight	973	5.03	<0.00	$\mu\neq\mu$	0.03
# in Family	1050	1.85	0.65	$\mu=\mu$	-
Income	1048	0.48	0.63	$\mu=\mu$	-

The analysis conducted was an Independent Samples T-test to compare the mean score of the continuous variables for the two groups studied. In testing for effect size, Eta squared represents the proportion of variance in the dependent variable that is explained by the independent variable. Birthweight was the only continuous variable in this study that showed significance, with a small to moderate effect size. Percentile as a variable was expected to be significant since that is the variable used to define the groups; the percentile in cases should not be equal to the percentile in controls.

The following analyses were conducted on all continuous variables, though nothing other than birthweight showed a significant association with subject status in this study. The effect of birthweight was similar across gender as well as race. Results from One Way ANOVA showed a significant difference among the mean birthweight of the three groups; post-hoc results indicate a significant difference between the obese and overweight groups and the obese and normal groups. Linear regression showed that birthweight helps to predict weight, BMI and percentile (p-value <0.00). Pearson correlation demonstrates that there is a weak positive correlation between birthweight and percentile (p-value <0.00); as birthweight increases, so does percentile.

Conclusions & Future Directions

Although this study is a necessary first step in understanding some public health aspects of the childhood obesity crisis, there is much more work to be done. For example, it is known from this study that an excessive proportion of children served by the WIC program are obese, but yet no risk factors for obesity have been clearly identified other than birthweight. Other risk factors may not have been identified due to the lack of demographic variability in the study population. All subjects have similar socioeconomic backgrounds due to the financial eligibility requirements of the WIC program. Maternal weight has been shown to be a strong predictor of childhood obesity. However, this important piece of data is not captured in the charts of WIC clients so is not available for analysis in this study. A more extensive study using interviews would allow collection of information regarding parental obesity status, eating habits, television viewing, physical activity, exposure to vending machines and fast food.

A second phase of this study is planned to include private physician practices and compare those data with the WIC data already collected. Data on obesity among children less than five years of age are sparse. More information regarding childhood obesity will assist in educating parents and physicians about this public health problem and its serious risks to the population.

For references or more information, please call (985) 871-8355 or email jhand@dhh.la.gov.

New! Free! Online CME-Approved Course for Physicians - Deadly Delicacy: *Vibrio vulnificus* in Raw Oysters

Vibrio vulnificus in raw oysters is among the most virulent food-borne pathogens. The case fatality rate is fifty-three percent and prompt physician diagnosis and treatment is critical to patient survival. "**Diagnosis, Treatment and Prevention of *Vibrio vulnificus* Infection**" is an innovative, online course that gives physicians concise, practical information on this topic. Developed in consultation with CDC, EPA's Gulf of Mexico Program and Tulane University's Health Sciences Center, this online course is interactive, informative and engaging. **The course is available to licensed physicians at no cost for a limited time only.**

Access the course online at www.carreermap.net. Enter "vibrio" in the user name, leave the password blank, and click on "submit" to launch the course. After you complete the course, fill out the Verification Form and send it to the Tulane University Health Sciences Center. Your CME credit will be emailed or faxed to you.

This course has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of Tulane University Health Sciences Center and Interstate Shellfish Sanitation Conference (ISSC). Tulane University Health Sciences Center is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians and has designated this educational activity for a maximum of 1 Category 1 credit toward the AMA Physician's Recognition Award.

Tulane University Health Sciences Center presents this activity for educational purposes only and does not endorse any product or content of presentation. Participants are expected to utilize their own expertise and judgment while engaged in the practice of medicine. The content of the presentations is provided solely by presenters who have been selected because of their recognized expertise.

One-Year Sequelae in Patients with WNV...(Cont. from page 1)

perception. Serology was used to confirm WNV infection for all suspected WNV cases. The number of cases of WNV is most likely an underestimate, since it is likely that some of the people with the more indolent course of WNV infection did not recognize the need to present to a physician for evaluation and therefore were not diagnosed.

The primary objective of this study was to describe the one-year physical and psychological morbidity symptoms in a population infected by WNV and complicated by meningitis and encephalitis. Secondary objectives were to compare the severity of the disease morbidity with regards to severity of the initial infection and demographic characteristics as well as find the mortality rate due to WNV infection.

Responders Versus Non-responders

When comparing people who responded and people who did not, the distribution of people among five age groups (0-29, 30-44, 45-59, 60-74, +75) showed no significant difference ($p = 0.47$), and there was also no significant difference with regards to gender (male/female OR = 1.49; CI = 0.17-3.12). Those who responded had a mean age of 51.82 years whereas non-responders had a mean age of 50.11 years.

Morbidity

Answers were obtained from patients who had suffered from WNV encephalitis and meningitis as to whether the following remaining signs and symptoms persisted: weakness, incontinence, chronic headache, joint pain, muscle ache, paresthesias, tremors, altered mental status, confusion, slurred speech, seizures, vision problems, hearing difficulties, balance difficulties, chronic fatigue, depression, anxiety, hyperactivity, emotional lability, aggressivity, agitation, panic attacks. To assess whether severity of neuroinvasive disease was a factor in level of morbidity, responders who had suffered from meningitis were compared to responders who suffered from encephalitis.

Out of 127 responders, nine reported no one-year sequelae and seven only had one sequela. Twenty-eight reported more than fifteen sequelae (Table 1).

Table 1: Frequency of symptoms among responders who reported at least one symptom

Symptom		% of Responders N=118
Pains	Chronic Headache	31.4
	Joint Pain	46.6
	Muscle Ache	49.2
Sensory	Paresthesia	43.2
	Tremor	35.6
Motor	Weakness	50.0
Mental State	Altered Mental Status	38.1
	Confusion	36.4
	Seizures	6.8
	Coma	0.0
Other CNS	Slurred Speech	17.8
	Visual Impairment	43.2
	Auditory Impairment	26.3
	Balance Problem	41.2
Mood	Depression	40.7
	Anxiety	37.3
	Hyperactivity	16.9
	Emotional Liability	39.8
	Aggressivity	33.9
	Agitation	45.8
	Panic attack	20.3
Chronic Fatigue		54.2
Urinary Incontinence		18.6

Hospitalizations

Twenty-nine percent of the responders had been hospitalized at least once after their initial hospitalization for West Nile infection. Of all the responders, fourteen percent were re-admitted at least once for medical problems that were related to WNV infection and 18.6% were re-admitted at least once for non-WNV related medical problems. Stratification by age group (0-44 versus > 44 year olds) and clinical severity (encephalitis versus meningitis) showed no significant relationship (MH-OR = 0.86, CI = 0.24-3.20) in hospitalization rates.

Results

Out of 204 patents with neuroinvasive WNV disease, twenty-seven patients were already known to be deceased before the initiation of the one-year follow-up survey. Among these twenty-seven deceased, twenty-five deaths were due to complications of WNV and

Is Mortality From Staphylococci on the Rise?

Nathan Weed, MPH

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. 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

two deaths were due to other causes. Of the 177 remaining patients to be interviewed, 127 completed the survey, five were deceased and forty-five did not complete the survey. Of the forty-five that did not complete the survey, four refused and forty-one could not be reached. Of the 188 cases not deceased, follow-up was obtained for 74.6%.

Discussion

The survey would only be marginally affected by the non-response of patients since there was no significant difference between responders and non-responders by age and gender. This was not the case for race, but previous studies in Louisiana have shown no significant difference in clinical severity of WNV infection by race. Perhaps race, which is associated with socioeconomic level, affected how permanent contact information, such as addresses and telephone numbers, existed in certain households. This in turn would affect the interviewer's ability to contact people, also affecting response rates among different populations.

Other limitations to this study include the fact that sequelae, functional status and hospitalization events were self reported. For the time allotted to do this surveillance study, it was not feasible to pull all of the outpatient and hospital charts of responders to verify the existence and accuracy of these symptoms and hospitalizations. In addition, the mortality rate may have been underestimated. For the people who were non-responders, a review of the state death registry could have clarified if some of these people were deceased or not. Due to time limitations, this also was not performed.

Possible means of pathogenesis with regards to neuroinvasive disease include weakening of the blood brain barrier through chronic conditions. Industrialized countries, such as Romania and the U.S. where recent WNV outbreaks have occurred, tend to have high prevalence of chronic disease of the circulatory system which may predispose a person to death. It is possible that certain conditions, such as diabetes mellitus and hypertension, contribute to the increased permeability of blood vessels due to their deleterious effects on the microvasculature. With leaky vessels in place, the West Nile virus could easily pass from the blood to the brain and cause neruoinvasive disease as well as increased mortality.

Many of the one year sequelae are non-specific and are a result of physical impairment. A large percentage of cases may also have residual symptoms due to psychological effects. When the West Nile Outbreak occurred from July to December 2002, it was a major media event and caused much anxiety among the population. At that time, WNV infection was mysterious, terrifying, potentially life-threatening and its long term effects were unknown to the general public. Even though the acute WNV infection is now over, perhaps the high rate of self perception of poor health status is a residual effect of the anxiety and trauma that resulted from the WNV infection. Future research of the psychological aspect of WNV infection as well as comparative studies, possibly between the USA and Romania outbreaks, could serve to elucidate these theories further. As WNV becomes more widespread, it will be important for clinicians to understand the long-term consequences of severe WNV infections.

Dr. Ou, former Preventitive Medicine resident at OPH, now on a three month assignment in the Philippines with the CDC STOP Program

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. The crude numbers of mortality resulting from these causes of death are presented in Table 1.

The data provided by death certificates issued in Louisiana between 1999 and 2003 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 Infectious Disease Epidemiology Section will continue monitoring the causes of death attributable to staphylococcal infections in order to detect changes in this trend.

Table 1. Number of deaths caused by staphylococcal infections in Louisiana, 1999 - 2003

Cause of Death	**1999**	**2000**	**2001**	**2002**	**2003**
Cutaneous abscess, furuncle and carbuncle	0	2	5	2	6
Pneumonia due to staphylococci	21	18	12	8	13
Septicaemia due to staphylococci (aureus and other)	28	24	17	21	24
Staphylococcal infection, unspecified	10	1	3	6	5
Total	**59**	**45**	**37**	**37**	**48**

Cardiovascular Disease Risk Factors Among Louisianians, 2003

Jennifer Botsford, MPH

According to the CDC, in 2002, thirty-four percent of all deaths in Louisiana were due to Cardiovascular Disease (CVD). According to 2003 BRFSS (Behavioral Risk Factor Surveillance System) data, almost 300,000 Louisianians are living with coronary heart disease and/or have survived a stroke or a heart attack. This report compares targeted modifiable risk factors including smoking, nutrition and physical activity between those with a history of CVD and those without such history. Those with a history of CVD are at greater risk for future episodes and/or complications of CVD.

Data for this report was collected from the BRFSS, a self- reported, random digit dialed statewide telephone survey. CVD was defined as diagnosis by a doctor of one or more of the following: coronary heart disease (CHD), heart attack, stroke. Participants were asked about CVD history and related risk factors (Table 1).

Table 1: Percentage with risk factor among those with/ without CVD - Louisiana, 2003

	Smoking			Weight	Fruits and Vegetables	Exercise
	Current	Former	Never	Overweight or Obese	<5 Servings/ day	Do not Meet Recommendations*
CVD	23%	38%	39%	77%	82%	75%
No CVD	27%	19%	54%	60%	84%	58%

*Recommendation: Either thirty minutes of moderate exercise five or more days per week OR twenty minutes of vigorous exercise three or more days per week.

Those with a history of CVD are similar to those without CVD in regards to both 'Fruit and Vegetable' consumption and 'Smoking'. Eighty-four percent of Louisianians without CVD and eighty-two percent of those with CVD do not eat the recommended five or more servings of fruits and vegetables per day. Smoking rates between those with and those without CVD are similar. Those with CVD have a higher proportion of 'Former' versus 'Current' smokers than those without a history of CVD. However, since one in four people with CVD are still current smokers, smoking remains an important risk factor.

A higher percentage of those with a history of CVD are overweight and not meeting the recommendations for exercise, than those without CVD. Seventy-seven percent of those with CVD are overweight or obese versus sixty percent of those without CVD being overweight or obese. Seventy-five percent of those with CVD versus fifty-eight percent of those without CVD did not meet the recommendations for physical activity.

It is essential that Public Health Workers and Health Providers continue to address CVD and related risk factors, targeting those with a history of CVD as those with CVD are at a high risk for future episodes of CVD. This report found that those with CVD are still not meeting the recommendations for maintaining a healthy heart and therefore should be targeted for counseling and education regarding CVD, smoking, obesity, exercising and consumption of fruits and vegetables.

The Cardiovascular Health program at the Louisiana Office of Public Health is currently developing a state plan which will address CVD and associated risk factors. For more information, please contact Ms.Tara Doskey, Program Manager at tdoskey@dhh.la.gov or (504) 599-1096.

Hepatitis C Infection in Louisiana

Estimating a prevalence of 1.8% of hepatitis C in the general population, there are in Louisiana, about 81,000 individuals who have been infected with the hepatitis C virus. In 2002, the incidence of reported cases of acute hepatitis C was 2.2/ 100,000 versus 0.64 in the United States. The case register maintained by the Louisiana Office of Public Health has 22,000 cases. Building up a register of hepatitis C past or present infections is a significant tool that may be used to resolve some important questions about the epidemiology of hepatitis C or be used for future preventative actions. Physicians and hospitals are encouraged to report hepatitis C infections with sufficient information to distinguish acute hepatitis C from hepatitis C past or present infection.

For more information, please read *"Hepatitis C Infection in Louisiana"* by Theresa M. Sokol, MPH, Brian E.Lewis, MPH, Susanne Straif-Bougeois, PhD, MPH, Gita Talati, MS and Raoult C. Ratard, MD MPH & TM, published in the Journal of the Louisiana State Medical Society Vol 157, March-April 2005.

OPH Training Offerings

Vectorborne and Zoonotic Disease Epidemiology in Louisiana

The OPH Infectious Disease Epidemiology Section is offering this videoconference which is targeted towards public health nurses, physicians, veterinarians, infection control professionals, disease surveillance specialists, epidemiologists, sanitarians, health care providers and other public health staff. It will be accessible at nine sites throughout Louisiana on June 15, 2005 from 9:00 A.M. to Noon. Applications have been entered for Veterinary, Laboratory, Sanitarian, Nursing and Physician Continuing Education Units. *Registration Deadline is May 30th! Call or email Louise Bellazar (504) 5685005 x 102 or lbellaz@dhh.la.gov for registration information.*

Note these dates:

September 14, 2005 9-Noon Infectious Diseases Surveillance and Investigation in Health Care Facilities - Part 4: Outbreak Investigation
October 5, 2005 9-Noon Environmental Epidemiology Update
October 18, 2005 Field Epidemiology Techniques I – Full Day In-House Training
October 19, 2005 Field Epidemiology Techniques II – Full Day In-House Training
November 9, 2005 9-Noon Antibiotic Resistance Update Videoconference

LOUISIANA COMMUNICABLE DISEASE SURVEILLANCE

MARCH - APRIL, 2005

Table 1. Disease Incidence by Region and Time Period

HEALTH REGION TIME PERIOD

DISEASE		1	2	3	4	5	6	7	8	9	Mar-Apr 2005	Mar-Apr 2004	Jan-Apr Cum 2005	Jan-Apr Cum 2004	% Chg
Vaccine-preventable															
Hepatitis B	Cases	1	1	1	2	0	1	0	2	0	8	8	16	22	-27.3
	Rate[1]	0.1	0.2	0.3	0.4	0.0	0.3	0.0	0.6	0.0	0.2	0.2	0.4	0.5	NA
Measles		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mumps		0	0	0	0	0	0	0	0	0	0	0	4	4	0.0
Rubella		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pertussis		4	0	0	2	0	1	0	1	0	8	1	12	3	300
Sexually-transmitted															
HIV/AIDS	Cases[2]	36	22	2	14	7	5	10	1	5	102	212	251	383	-35.0
	Rate[1]	3.6	3.8	0.5	2.6	2.5	1.7	2.0	0.3	1.1	2.3	4.8	5.7	8.8	NA
Gonorrhea	Cases	588	248	132	202	73	92	383	152	95	1965	1828	3194	3731	-537
	Rate[1]	56.9	41.1	34.4	36.9	25.8	30.5	73.3	43.0	21.7	44.0	40.9	71.5	83.5	NA
Syphilis (P&S)	Cases	12	10	3	11	1	1	2	2	5	47	46	74	81	-7
	Rate[1]	1.2	1.7	0.8	2.0	0.4	0.3	0.4	0.6	1.1	1.1	1.0	1.7	1.8	NA
Enteric															
Campylobacter		4	5	1	1	1	1	0	1	6	20	26	36	35	2.9
Hepatitis A	Cases	4	5	0	2	1	1	0	0	0	13	4	26	8	225.0
	Rate[1]	0.4	0.8	0.0	0.4	0.4	0.3	0.0	0.0	0.0	0.3	0.1	0.6	0.2	NA
Salmonella	Cases	21	15	14	16	4	5	3	4	11	93	83	157	124	+26.6
	Rate[1]	2.0	2.5	3.6	2.9	1.4	1.7	0.6	1.1	2.5	2.2	1.9	3.6	2.9	NA
Shigella	Cases	0	0	2	0	3	7	0	1	1	14	66	39	102	-61.8
	Rate[1]	0.0	0.0	0.5	0.0	1.1	2.3	0.0	0.3	0.2	0.3	1.5	0.9	2.4	NA
Vibrio cholera		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vibrio, other		1	0	0	3	0	0	0	0	0	4	7	4	7	-42.9
Other															
H. influenzae (other)		3	3	0	1	0	0	2	0	0	9	4	22	9	144.4
N. Meningitidis		2	2	2	2	1	0	1	0	2	12	7	21	18	16.7

1 = Cases Per 100,000

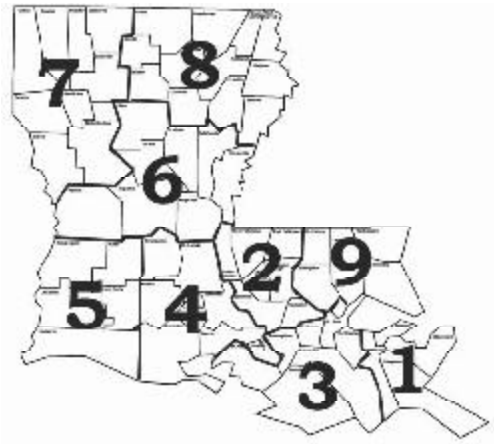
2=These totals reflect persons with HIV infection whose status was first detected during the specified time period. This includes persons who were diagnosed with AIDS at time HIV was first detected. Due to delays in reporting of HIV/AIDS cases, the number of persons reported is a minimal estimate. Data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

Table 2. Diseases of Low Frequency (January - April, 2005)

Disease	**Total to Date**
Legionellosis	4
Lyme Disease	2
Malaria	0
Rabies, animal	4
Varicella	95

Table 3. Animal Rabies (January - April, 2005)

Parish	**No. Cases**	**Species**
Lafayette	3	Skunk



Sanitary Code - State of Louisiana
Part 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
- Botulism
- Brucellosis
- Cholera
- Diphtheria
- Haemophilus influenzae (invasive disease)
- Measles (rubeola)
- Neisseria meningitidis (invasive disease)
- Plague
- Poliomyelitis, paralytic
- Q Fever
- Rabies (animal & man)
- Rubella (German measles)
- Rubella (congenital syndrome)
- Smallpox
- Staphylococcus Aureus, Vancomycin Resistant
- 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.

- Aseptic meningitis
- Chancroid[1]
- E. Coli 0157:H7
- E. Coli Enterohemorrhagic (other)
- Encephalitis, Arthropod borne
- Hantavirus Pulmonary Syndrome
- Hemolytic-Uremic Syndrome
- Hepatitis A (acute disease)
- Hepatitis B (carriage)
- Hepatitis B (perinatal infection)
- Hepatitis E
- Herpes (neonatal)
- Legionellosis (acute disease)
- Malaria
- Mumps
- Pertussis
- Salmonellosis
- Shigellosis
- Syphilis[1]
- Tetanus
- Tuberculosis
- 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
- Cryptosporidiosis
- Cyclosporiasis
- Dengue
- Ehrlichiosis Hansen's Disease (leprosy)
- Enterococcus, Vancomycin Resistant (VRE) (invasive disease)
- Giardia
- Gonorrhea[1]
- Hansen's Disease (leprosy)
- Hepatitis B (acute)
- Hepatitis C (acute and infection)
- Human Immunodeficiency Virus (HIV infection)
- Listeria
- Lyme Disease
- Lymphogranuloma Venereum[1]
- Psittacosis
- Rocky Mountain Spotted Fever (RMSF)
- Staphylococcus Aureus, Methicillin/ Oxacillin Resistant (MRSA) (invasive disease)
- Staphylococcal Toxic Shock Syndrome
- Streptococcal disease, Group A disease)
- Streptococcal disease, Group B (invasive disease)
- Streptococcal Toxic Shock Syndrome
- Streptococcus Pneumoniae (invasive infection, penicillin resistant (DRSP))
- Streptococcus Pneumoniae (invasive infection in children < 5 years of age)
- Trichinosis
- Varicella (chickenpox)
- Vibrio Infections (other than cholera
- West Nile Fever
- West Nile Infection (past or present)

Other Reportable Conditions

- Cancer
- Complications of Abortion
- Congenital Hypothyroidism*
- Galactosemia*
- Hemophilia*
- Lead Poisoning
- Phenylketonuria*
- Reye's Syndrome
- Severe Traumatic Head Injury**
- Severe Undernutrition (severe anemia, failure to thrive)
- Sickle Cell Disease (newborns)*
- 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 (EPI-2430), facsimile (504-568-5006), phone reports (504-568-5005 or 1-800-256-2748), 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.

*Report to the Louisiana Genetic Diseases Program Office by telephone (504) 568-5070 or FAX (504) 568-7722.

**Report on DDP-3 form; preliminary phone report from ER encouraged (504) 568-2509. Information contained in reports required under this section shall remain confidential in accordance with the law.

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