STATE OF LOUISIANA

DEPARTMENT OF HEALTH AND HOSPITALS

Louisiana Morbidity Report

Louisiana Office of Public Health - Infectious Disease Epidemiology Section
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http://www.dhh.louisiana.gov/offices/reports.asp?ID=249&Detail=7428

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January-February 2010 **Volume 21 Number 1**

An Outbreak of Meningococcal Meningitis in a Prison Central Louisiana, 2010

David Holcombe MD MSA; Michele Pogue MT (ASCP); Shirley Burton MPH

On January 22, 2010, Patient A, a 22-year-old male prisoner, reported feeling ill during the day. In the evening, he experienced malaise and was isolated during the night. The next morning, he felt worse and complained of a stiff neck, fever, body aches and difficulty moving around. He was sent to a local hospital where meningitis was suspected, lab work was expedited and the Office of Public Health (OPH) was notified. A diagnosis of bacterial meningitis was made based on lumbar puncture results. No bacteria were identified on the microscopic examination of the spinal fluid. A culture was prepared. The prison medical staff suspected the case to be meningococcal meningitis and gave prophylaxis to 14 close contacts from the work crew and from dormitory A.

On the next evening, Patient B, another prisoner from the same facility and work crew (a 37-year-old male), experienced nausea, vomiting, fever and a stiff neck. He was immediately sent to the hospital. His lumbar puncture yielded inconclusive results. This prisoner had been in dormitory D until 2 days before he became sick, then he was moved to dormitory A. Given that there were 2 suspected cases, it was decided to give prophylaxis (Ciprofloxacin 500mg) to everyone in dormitories A and D.

January 26th, *Neisseria meningitidis* was confirmed in the spinal fluid of Patient A, but nothing was isolated from that of Patient B. At that time, there was only a single case of meningococcal meningitis and no further public action was deemed necessary. Both patients were recovering well.

On February 1st, a confirmed case of meningococcal meningitis was reported from the Lake Charles area in a 41-year-old male. The disease surveillance specialist, upon learning that the case was a recently released inmate, found out that Patient C was formerly in the same Central Louisiana prison as the other 2 patients and had been released on January 22nd. The ability to "connect the dots" was made possible by an OPH web-based program (Epistories) accessed regularly by all epidemiology staff. The household contacts of the released inmate were all given prophylaxis.

Having 2 confirmed meningococcal meningitis cases in a confined population within a time span of less than 1 month is an indication for the mass immunization of the confined population. Inmates and staff in 2 prisons (which had been exchanging prisoners regularly) were immunized on February 4th and 5th by nurses from the prison, and from regional and parish OPH staffs. In all, 900 individuals were vaccinated.

This is the third outbreak of meningococcal meningitis occurring in Louisiana since 2006. For a description of previous outbreaks go to *http://www.dhh. louisiana.gov/offices/miscdocs/docs-249/annual/LaIDAnnual_MeningitisInvasive.pdf*

For more information please contact Dr. Holcombe at (318) 487-5262, or e-mail to *david.holcombe@la.gov.*

Law Enforcement and Public Health - Louisiana, 2010

Caroline E. Holsinger MPH

The Federal Bureau of Investigation (FBI), and the Centers for Disease Control and Prevention (CDC) sponsored the New Orleans Regional Criminal and Epidemiology Investigation Workshop held January 12-13, 2010 in New Orleans. The Louisiana Office of Public Health facilitated this event.

The goal of this workshop was to improve the ability of law enforcement, and public health officials to respond to a potential bioterrorism event. Participants were asked to identify the roles, capabilities and expertise of each group in a bioterrorism incident. Workshop activities included functioning together to identify, investigate and respond to weapons of mass destruction.

This course provided its participants with awareness of resources and capabilities of the FBI and CDC, specific agency roles in a bioterrorism response, challenges surrounding information sharing, weapons of mass destruction threat assessment procedures, sampling and laboratory methodology as well as joint investigation/interview techniques.

For more information please contact Caroline Holsinger or Julie Hand at (504) 219-4563, or e-mail to *caroline.holsinger@la.gov* or *to julie.hand@la.gov*.

Contents

Work-Related Hospitalizations* Louisiana, 1998-2007

Cara Locklin MPH; Michelle Lackovic MPH

** Excerpted from "Work-Related Hospitalizations in Louisiana: A Review of Louisiana Hospital Inpatient Discharge Data for 10 Years (1998-2007)"; prepared September, 2009.*

This is the first analysis of work-related injuries and illnesses using data from the Louisiana Hospital Inpatient Discharge Database (LAHIDD) spanning the years 1998 through 2007. The goal of this analysis is to provide information that might contribute to the development of targeted educational and preventative measures to reduce occupational injuries and illnesses for Louisiana workers. Expected payment by workers' compensation insurance (WC) was used as an indicator of a work-related hospitalization.

Methods

Records were included in the analysis if the expected primary payer for the hospitalization was WC. Exclusions include out-of-state residents, patients younger than 16 years of age and records with a principal diagnostic code that was pregnancy-related. (Children younger than 16 years of age and pregnancy-related hospitalizations made up less than 1% of the work-related dataset.) Records for out-of-state residents injured in Louisiana may contain useful information on work-related hospitalizations in the state, but they were excluded in order to establish population-based rates and trends for Louisiana residents. There were a total of 23,668 records identified as work-related hospitalizations, which corresponds to an average of about 2,360 hospitalizations per year.

Limitations

There are several limitations that are important to consider. While the correlation between expected payment by WC and whether a case is work-related is strong, it does not capture all work-related hospitalizations. There is evidence that many occupational injuries and illnesses are never reported to WC insurers, but it is unknown how much under-reporting occurs. There are many reasons for incomplete reporting, including incentive programs to employees for decreasing injury rates, the belief that injury is a normal consequence of work, or fear of retaliation from employers. (For example, a 2006 study by the University of Illinois at Chicago showed that only 6% of day laborers who were injured on the job had their medical expenses covered by WC. Many reported that employers threatened reprisal such as withholding wages if incidents were reported due to the cost the business would incur.) Other workers are not covered because employers do not provide coverage, despite legal requirements to so so. (For example, Louisiana's Office of WC recently found that 7 out of the 10 companies included in a spot check, did not provide adequate coverage for employees.) Finally, hospital staff may not have sufficient information to accurately determine if a hospitalization was work-related.

The analysis may also under-represent work-related conditions in Louisiana because some workers may seek medical care outside of the state, particularly in nearby Texas, Arkansas and Mississippi. Patients may go to facilities outside of Louisiana to see providers who specialize in certain conditions, or due to the proximity of a hospital during an emergency situation.

In addition, this study does not control for the effect of repeat admissions and conditions that result in multiple visits may be over-represented. One work-related incident may have led to 2 or more hospital stays, such as in the case of an injury that results in surgery followed by post-surgical care on a later date. Therefore, it is important to keep in mind that these results present hospitalizations and not counts of unique occupational incidents.

The LAHIDD system itself lacks certain data that could have contributed important information to this analysis; hospital records do not include fields indicating either occupation or industry in which the patient was employed. Were this information included, it would have been possible to draw more specific conclusions about occupational groups and industry sectors at the highest risk for occupational health hazards. The data are also missing many external-cause-of-injury or E-codes, which serve as supplementary information to classify circumstances that led to an injury or other condition.

Results

During this period, a disproportionate majority of work-related hospital admissions occurred among men. On average, males made up slightly more than half of Louisiana's working population that were at least 16 years of age (52.5%). They accounted, however, for 78.7% of work-related hospitalizations.

The rate per 100,000 workers was consistently lower for black workers than white workers. The difference was statistically significant.

Approximately 57% of work-related hospitalizations occurred among employed individuals between the ages of 35 years-old and 54 years-old. The hospitalization rates per 100,000 workers increased for each age group, with those 65 years-old or older having the highest rate (although this group makes up less than 4.7% of the working population in Louisiana) (Figure 1).

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Louisiana Morbidity Report
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Neonatal Sepsis Louisiana, 2002-2005

Clarissa Hoff, MD

Introduction

The United States has one of the highest infant mortality (defined as death before the first birthday) rates among the developed nations. The majority of infant deaths in the U.S. are in the neonatal period (day 0 to day 30 of life). Neonatal sepsis is an important factor in infant mortality and morbidity. This epidemiological study attempts to explore some of the possible risk factors that contribute to neonatal sepsis and death in the neonatal population as well as describe the burden of disease from neonatal sepsis.

Methods

The data for the neonatal sepsis was collected from the Louisiana Hospital Inpatient Discharge Data (LaHIDD). All hospitals in the state of Louisiana are required to report fully to the database.

The ICD-9 code 771.81 (septicemia of the newborn) was used to select all records of infants with neonatal sepsis from LaHIDD data. It was noted that Code 771.81 was implemented in 2002 to further define 771.8 which included various infections of newborns such as septicemia of the newborn, urinary tract infections, intra-amniotic infection of the fetus, intrauterine infection and other infections specific to the perinatal period. Therefore it was decided to use 2002-2005 data after the use of Code 771.81 (the code specific to neonatal sepsis only) was fully implemented.

Data for the general population was obtained from the Louisiana State Registrar/Vital Records and Statistics, and the Centers for Disease Control National Vital Statistic systems pertaining to years 2002 to 2005.

A file with neither duplicates nor identifiers was obtained. Microsoft Access 2007® was used to gather and clean the data of all infants with a diagnosis of neonatal sepsis upon discharge. Infants admitted after 90 days of life (thus not fitting the definition of neonatal sepsis) were then removed. The database contained 6,832 septic neonates for Louisiana during the years 2002 to 2005. When evaluating trends, the year 2002 was not used due to the low number of cases with the 771.81 code. (Presumably, this was due to a lack of familiarity with the new code at that time.)

Statistics were done on the data using Epi Info version 3.5.1®. Unless otherwise noted, Mantel-Haenszel Chi-squared tests were done for simple 2-by-2 comparisons, while those with more variables or compounding variables were done with logistic regression. Trend tests were done with a chi square for linear trend test.

Results

Out of the 2002 to 2005 LAHIDD data, 6,832 cases of neonatal sepsis were found. There were: 3,740 (54.7%) males and 3,092 (45.3%) females; 2,789 (40.8%) blacks/African-Americans, 2,756 (40.3%) whites/Caucasians, and in 1,161 cases (17%) the race was unknown or missing; all other races consisted of less than 2% of the population. Of the 5,846 where the final outcome of death or discharge home was recorded, 196 (3.6%) died while 4,578 (96.7%) were discharged home.

Trends in Neonatal Sepsis

Neonatal sepsis increased in Louisiana from 2.57% of live births in 2003 to 3.91% in 2004 to 4.16% in 2005 with a significant trend found ($p<0.05$). Comparison to the rate of neonatal sepsis in the U.S. was not done due to the lack of U.S. neonatal sepsis data available.

Risk Factors for Neonatal Sepsis

When compared to the general population, septic infants were more likely to be male and black. Septic infants were also more likely to weigh less than 2,000 grams (4.4 lbs.), and to be born preterm (Table 1).

Risk Factors for Death in Septic Neonates

Males were more likely than females to die (OR=1.38, CI=1.03-1.84, $p<0.05$), and blacks were more likely than whites to die (OR=1.57, CI=1.14-2.18, $p<0.05$); specifically, black males being at the highest risk of death in comparison to their white female counterparts (OR=1.97, CI=1.21-3.19, $p<0.05$).

Individual chi square analysis was done with a 2-by-2 table comparing each gestational age category to term infants. There was a significant increase in death for the less than or equal to 24-week gestational age group and, the 25 to 28-week gestational age group. A gestational age greater than 28 weeks was not significant ($p<0.05$).

Multiple births were associated with an increased likelihood of death compared to single births (OR=2.93, CI=2.01-4.27, $p<0.05$).

Birth weight was strongly associated with death. Compared to septic neonates who weighed greater than 2,000 grams at birth, infants weighing less than 500 grams at birth had an OR of 309.77 (CI=96.38-995.95, $p<0.05$) for death. Infants weighing 500 to 999 grams at birth had an OR of 97.99 (CI=39.58-242.61, $p<0.05$). Infants who weighed 1,000 to 1499 grams at birth had an OR of 11.09 (CI=3.89-31.65 $p<0.05$) for death, while infants who weighed 1,500-1,999 grams at birth had an OR of 4.40 (CI=2.01-4.27, $p<0.05$) of dying.

However, when various adjustments were made to create different logistic regression models none of the above risk factors for death remained significant except weight and gender (Table 2).

Table 2: Logistic Regression of Risk Factors for Death in the Neonatal Septic Population - Louisiana, 2002-2005

CHARACTERISTICS	VARIABLES	OR	95% CI LOW	95% CI HIGH	P-VALUE
Gender	Female	Referent			
	Male	1.61*	1.09	2.4	0.02*
Weight	2,000+ gms	Referent			
	<500 gms	309.77*	96.35	995.95	0*
	500-1,000 gms	97.99*	39.58	242.61	0*
	1,000-1,500 gms	11.09*	3.89	31.65	0*
	1,500-2,000 gms	4.40*	1.44	13.49	0.01*

**Data is significant with a p-value less than 0.05.*

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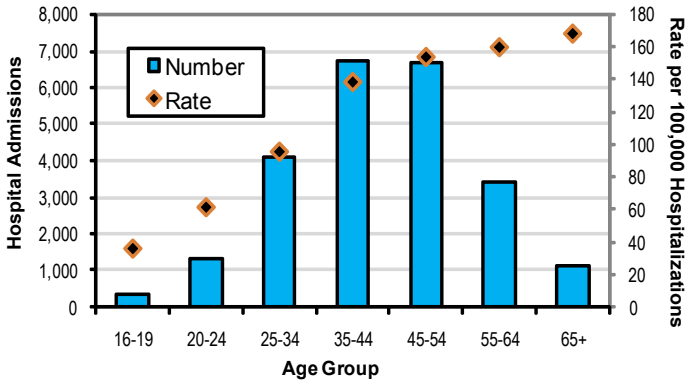
Work Related Hospitalizations ... Continued from page 2

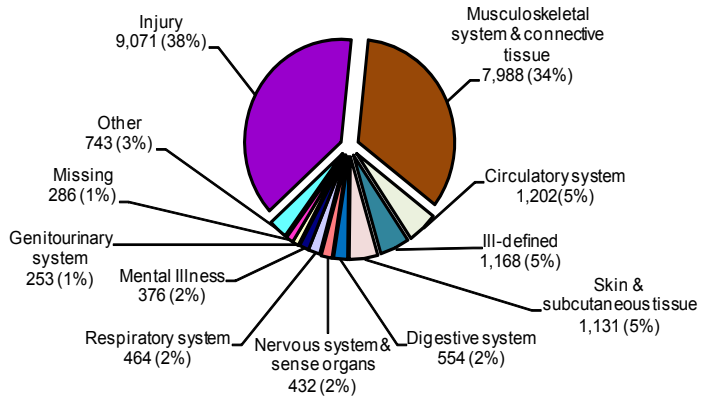
Figure 1 - Number and Rate of Hospitalizations Covered by Workers' Compensation by Age Group - Louisiana, 1998-2007



Hospitalization rates varied widely based on parish of residence. Among Louisiana's 64 parishes; 6 had rates more than 3 times greater than the state average: Grant, St. Helena, Evangeline, St. Martin, Catahoula and La Salle. The 7 parishes with the largest populations all had rates below the state average: East Baton Rouge, Orleans, Jefferson, Lafayette, Caddo, Calcasieu and Ouachita.

The majority (72%) of work-related hospitalizations were caused by injuries (38%) or disorders of the musculoskeletal system and connective tissue (34%) (Figure 2).

Figure 2. Percent of Hospital Admissions Covered by Workers' Compensation, by Primary Diagnosis - Louisiana, 1998-2007



Work-related injuries are generally defined as those that result from single events such as falls or being struck or crushed by objects. Although these events can occur in any setting, certain industries are at greater risk, including construction, manufacturing, oil/gas activities, farming and transportation. This analysis indicates that the injury hospitalization rate increased with age; the most common injuries were fractures (42%), followed by complications (16%), and open wounds (10%). Amputations are classified as an open wound to an extremity. Due to the severity and effect on quality of life of this type of injury, counts of injuries resulting in amputation were noted separately. There were 237 amputations during this 10-year period, the majority involving upper extremities.

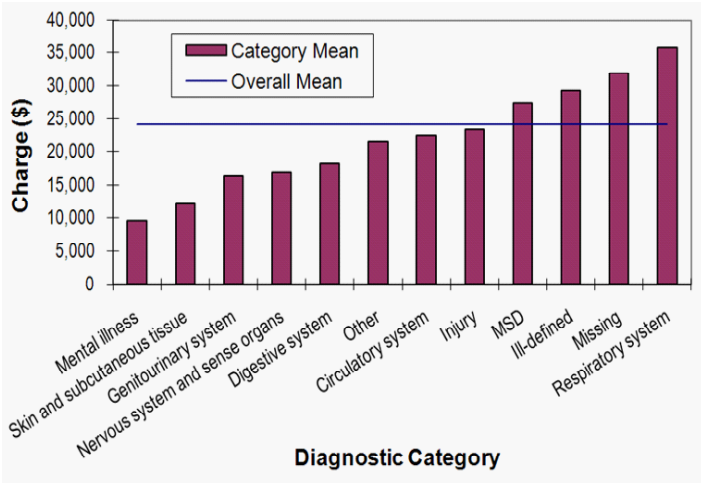
Of all 23,668 work-related hospitalizations between 1998 and 2007, 114 listed the patient's discharge status as "expired" or "expired in a medical facility." The principal diagnoses for 56 (49%) of these patients were injuries. Intracranial injuries accounted for nearly half of the injury-related deaths and had a death rate of 63.0 per 1,000 hospitalizations - much greater than any other diagnosis.

Rates of Musculoskeletal System and Connective Tissues Disorder (MSD) hospitalizations were highest for those between the ages of 35 years and 64 years, with an average of 56 per 100,000 workers. The lowest rates were for 16 to 19 year-olds, at 2 per 100,000 workers. Nearly three-quarters of MSD hospitalizations were dorsopathies (disorders of the back and spine); 76% of dorsopathies were related to intervertebral disc disorders. The most common type of intervertebral disc disorder was displacement of lumbar or cervical discs. The elevated rate of MSD hospitalizations is consistent with national statistics. Back pain affects approximately 15% of working Americans, resulting in more than 100 million lost workdays nationwide, and is the cause of about a quarter of all WC claims. The occupations that put workers at highest risk for musculoskeletal disorders are construction jobs among males and nursing aide jobs among females.

Costs and Length of Stay

The mean annual costs for work-related hospitalizations have continuously increased since 1999. The average cost of a work-related hospitalization between 1998 and 2007 was $24,321.47. The 2 most costly diagnoses, as well as those that resulted in the longest hospital stays, were disorders of the respiratory system and ill-defined diagnoses, primarily rehabilitation care. Conditions of the respiratory system led to the highest mean cost and the second longest mean hospital stay (Figure 3).

Figure 3. Mean Cost of Hospital Admissions Covered by Workers' Compensation Based on Diagnosis Codes - Louisiana, 1998-2007



The length of stay for approximately 60% of work-related hospitalizations was 3 days or fewer; nearly 4% were hospitalized for 16 days or more. The average stay during this 10-year period was 4.7 days.

Summary

This analysis demonstrates the usefulness of hospital discharge data for describing the impact of serious work-related injuries, and illnesses on total hospitalizations, as well as for provid-

ing information on the demographics of workers affected by these conditions. A wide array of information is available in LAHIDD, including payment, diagnosis and procedure codes, as well as patient characteristics. These data offer details that are not always available from other sources, such as WC records, OSHA workplace injury and illness logs, and population-based studies. LAHIDD data are routinely collected by the Louisiana Department of Health and Hospitals/Office of Public Health and can be used in occupational health surveillance to identify and target work-related conditions. Since records are included for all hospitalizations, regardless of pay, it also provides the opportunity to make comparisons between work-related hospitalizations and total hospitalizations.

The results of this analysis led to suggestions for improving LAHIDD data and for future analyses that utilize this data source. Inclusion of occupational information in each record and more frequent reporting of external-cause-of-injury codes ("E-codes") would be valuable changes to the data set. It is also recommended that future investigations examine injury and musculoskeletal hospitalizations in greater detail, since they constitute the majority of work-related cases.

Such studies will provide information necessary to help target and implement prevention efforts for high risk occupations and industries, ultimately reducing the burden of work-related injuries and back disorders.

For the complete report, go to *http://www.dhh.louisiana.gov/offices/publications/pubs-205/LAHIDD-WC_FINAL.pdf*. For more information, please contact Michelle Lackovic at (504) 219-4518, or e-mail to *michelle.lackovic@la.gov.*

IMPORTANT NOTICE: Disease Reporting in Louisiana

We would like to remind you about the importance of reporting communicable diseases. In Louisiana, disease surveillance rests on reporting to the Office of Public Health (OPH). All healthcare providers, including physicians, hospitals and laboratories are required by law to report. The confidentiality of reports is protected by state law. The reports are used in several ways:

- The surveillance data are used by OPH and various other health care providers for health planning, policy making and research.
- Based on surveillance data, health alerts are issued when necessary
- Individual case reports of certain diseases - such as tuberculosis and syphilis - receive follow-up by OPH to ensure that patients receive appropriate medical treatment, and that their contacts receive appropriate preventive therapy.
- Contact investigations are carried out for certain diseases such as meningococcal invasive disease, pertussis and hepatitis A, to ensure that close contacts are given appropriate prophylaxis.
- Reports of some infectious diseases such as shigellosis, salmonellosis and vibrio infections can lead to identification of disease outbreaks that can then be controlled.
- Reports also can be used to identify groups at high risk, prompting intervention efforts targeted at those groups.
- Summaries of surveillance data are presented in this newsletter on page 7, and in our on-line Annual Summary Reports (*http://www.dhh.louisiana.gov/offices/page.asp?id=249&detail=6479*).
- Rapid identification of potential bioterrorist events.

For easier reporting, a toll-free number for reporting diseases (1-800-256-2748). has been established. Reporting can be done by accessing the reporting website [call (504) 219-4563 for instructions], or by facsimile transmission (504-219-4522). All patient information received is considered as part of the confidential disease case report, and as such, are not subject to disclosure.

Announcements

April Is STD Awareness Month!

One in 2 sexually-active young people will have an sexually transmitted disease (STD) by the age of 25, and most will not know it. April is STD Awareness Month, an annual observance to raise public awareness about the impact of STDs on the lives of Americans and the importance of preventing, testing for and treating STDs. It is an opportunity to normalize routine STD testing and conversations about sexual health. This is the second year that the Centers for Disease Control and Prevention (CDC), MTV, the Planned Parenthood Federation of America and the Kaiser Family Foundation have partnered to promote sexual health and STD/HIV testing in an award-winning initiative. To learn more, please visit *www.cdcnpin.org/stdawareness*.

Updates: Infectious Disease Epidemiology (IDES) Webpages
http://www.infectiousdisease.dhh.louisiana.gov

ANNUAL REPORTS: Chagas; Hantavirus; Invasive Meningitis; Lyme Disease: Outbreaks; Pertussis; Poliomyelitis; Psittacosis; Respiratory Syncytial Virus; Tetenus; Trichinosis

ANTIBIOTIC SENSITIVITY: Louisiana Antibiogram 2007-2008; Trends in Antibiotic Resistance - 2008

EPIDEMIOLOGY MANUAL: *Escherichia Coli* Infections; Pet Facilitated Therapy Guidelines; Viral Hemorrhagic Fever

FOODBORNE: Sausage Recall

HEALTH CARE ASSOCIATED INFECTIONS: Centers for Disease Control and Prevention Action Plan; Resources for Infection Practitioners

INFLUENZA: Weekly Report

VETERINARY INFORMATION: Microbiological Makeup of Common Veterinary Infections, Fourth Quarter, 2009 - Canine

WEST NILE VIRUS: 2009 Final Report

Neonatal Sepsis ... Continued from page 3

Discussion

This study's data held consistent with other research citing low birth weight as a major risk factor for neonatal morbidity and mortality. Low birth weight puts newborns at increased risk of neonatal sepsis and death among septic infants.

Weight at birth is highly affected by modifiable factors prior to pregnancy, and during the perinatal period. Because of this, it can be argued that weight alone is an excellent indicator of susceptibility to neonatal sepsis and death in the neonatal septic population.

Conclusion

A decrease in neonatal mortality in the U.S. has not occurred since the turn of the century; nor have there been recent radical advances in medicine's ability to treat neonatal infection. Weight is strongly connected with prenatal and socio-economic factors making weight a major modifiable risk factor in neonatal sepsis. Infants who were underweight or less than 2,000 grams at birth are at increased risk for neonatal sepsis and death.

If the number of neonatal sepsis and death in septic neonates is to be greatly reduced, research into how intervention addressing risk factors for underweight infants should be initiated or bettered, as well as addressing prenatal issues associated with low birth weight.

For references or more information, please contact Dr. Hoff at (504) 988-2841, or e-mail to choff@tulane.edu.

Table1: Demographic Characteristics of Neonatal Sepsis Population Compared to the General Newborn Population - Louisiana, 2003-2005*

	LA POPULATION**	NEONATAL SEPSIS POPULATION				
Characteristic	Number	Number	Incidence per 100 Live Births	95% CI Low	95% CI High	Odds Ratio (95% CI)
Number of Births						
Total No. of Births	194,601	6,832	3.51	3.14	3.86	
Gender						
Females	95,123	3,092	3.25	2.90	3.58	Referent
Males	99,478	3,740	3.76	3.38	4.12	1.16 (1.11-1.22)
Race* **						
White	110,762	2,756	2.49	2.18	2.78	Referent
Black	79,068	2,789	3.53	3.16	3.88	1.43 (1.36-1.51)
Gender and Race^						
White Females	54,158	1,209	2.23	1.94	2.51	Referent
White Males	56,604	1,547	2.73	2.41	3.04	1.23 (1.14-1.33)
Black Females	38,618	1,300	3.37	3.01	3.71	1.53 (1.41-1.65)
Black Males	40,450	1,489	3.68	3.31	4.04	1.67 (1.53-1.78)
Weight (gms)^						
>2,000gms	186,391	1,812	0.97	0.78	1.15	Referent
1,500-2,000gms	4,079	665	16.30	15.51	17.07	16.77 (15.43-18.23)
1,000-1,500gms	1,879	403	21.45	20.54	22.34	27.64 (24-31.40)
500-1,000gms	1,707	436	25.54	24.55	26.51	34.94 (30.99-39.40)
<500 gms	545	26	4.77	4.34	5.18	5.10 (3.36-7.70)
Gestational Age						
Term	161,014	1,630	1.01	0.82	1.19	Referent
Preterm	30,322	1,221	4.03	3.63	4.40	4.1 (3.80-4.42)

**Data compiled from CDC Vital Stats System and LA vital statistics. LA vital statistics where only available for 2003-2004. It was assumed proportions held for 2005 and 2004 data was used for 2005.*

***For LA and CDC vital statistics, the infants race was determined by the mothers race.*

****Races other then Black or White made up < 1.5% of LA births according to LA vital statistics. LAHDD data was missing race data for a 17% of the neonatal sepsis population.*

^Chi-square analysis done for OR.

Louisiana Fact

Although the first year of the State Board of Health for Louisiana was in 1855, its first full-time epidemiologist was not employed until January, 1941. Dr. C.L. Browne, stayed only a few weeks in that position.

Source: The Progressive Years - pg 364 - Gordon E. Gillson

Table. Communicable Disease Surveillance, Incidence by Region and Time Period, November-December, 2009

DISEASE		HEALTH REGION 1	2	3	4	5	6	7	8	9	TIME PERIOD Nov-Dec 2009	Nov-Dec 2008	Jan-Dec Cum 2009	Jan-Dec Cum 2008	Jan-Dec % Chg*
Vaccine-preventable															
Hepatitis B	Cases	1	0	1	0	2	0	0	3	0	7	15	69	94	-26.6
	Rate[1]	0.1	0	0.3	0	0.7	0	0	0.9	0	0.2	0.3	1.6	2.2	NA*
Measles		0	0	0	0	0	0	0	0	0	0	0	0	1	NA*
Mumps		0	0	0	0	0	0	0	0	0	0	0	1	1	NA*
Rubella		0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Pertussis		1	1	2	0	0	0	0	0	1	5	19	131	84	56.0
Sexually-transmitted															
HIV/AIDS	Cases[2]	33	30	2	5	4	5	14	9	9	111	183	1236	1162	6.4
	Rate[1]	3.3	5.2	0.5	0.9	1.4	1.7	2.8	2.6	2.1	2.5	4.2	28.3	26.6	NA*
Chlamydia	Cases[3]	566	372	146	456	170	234	670	286	167	3080	3755	27231	23592	15.4
	Rate[1]	70.1	57.8	37.0	78.9	59.7	78.0	125.6	82.4	32.0	69.8	85.1	617.4	534.9	NA*
Gonorrhea	Cases[3]	187	104	35	137	53	73	261	116	33	1004	1407	8840	9784	-9.6
	Rate[1]	23.2	16.2	8.9	23.7	18.6	24.3	48.9	33.4	6.3	22.8	31.9	200.4	221.8	NA*
Syphilis (P&S)	Cases[3]	5	4	0	9	2	1	13	7	10	51	134	668	721	-7.4
	Rate[1]	0.6	0.6	0.0	1.6	0.7	0.3	2.4	2.0	1.9	1.2	3.0	15.1	16.3	NA*
Enteric															
Campylobacter	Cases	0	3	0	4	3	0	3	2	3	18	10	107	89	20.2
Hepatitis A	Cases	0	1	0	0	0	0	0	0	0	1	1	7	11	NA*
	Rate[1]	0	0.2	0	0	0	0	0	0	0	0	0.0	0.2	0.3	NA*
Salmonella	Cases	18	21	15	24	14	4	11	9	23	139	111	1189	1114	6.7
	Rate[1]	1.7	3.7	4.0	4.7	5.2	1.3	2.2	2.6	6.0	3.2	2.6	27.6	25.8	NA*
Shigella	Cases	2	2	1	2	0	0	0	6	1	14	60	178	642	-72.3
	Rate[1]	0.2	0.4	0.3	0.4	0	0	0	1.7	0.3	0.3	1.4	4.1	14.9	NA*
Vibrio cholera	Cases	0	0	0	0	0	0	0	0	0	0	0	0	1	NA*
Vibrio, other	Cases	0	0	0	0	0	0	0	0	0	0	3	39	45	-13.3
Other															
H. influenzae (other)		1	0	0	0	0	0	1	1	1	4	4	21	13	61.5
N. Meningitidis		0	0	0	0	0	1	1	0	0	2	2	18	21	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 the 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.

[3] = Data should be considered provisional.

* Percent Change not calculated for rates or count differences less than 5.

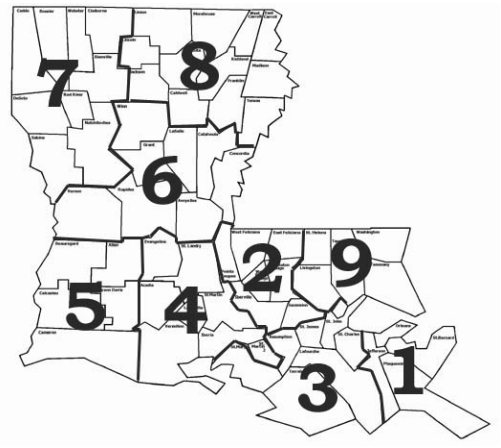
Table 2. Diseases of Low Frequency, January-December, 2009

Disease	Total to Date
Legionellosis	15
Lyme Disease	1
Malaria	7
Rabies, animal	5
Varicella	143

Table 3. Animal Rabies, November-December, 2009

Parish	No. Cases	Species
Iberia	1	Cat

Figure. Department of Health and Hospitals Regional Map



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Sanitary Code - State of Louisiana
Part II - The Control of Diseases

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

Class A Diseases/Conditions - Reporting Required Within Twenty-Four 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 One 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 Five 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)[3]
- 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)[3]
- 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 Five Business Days

- Cancer
- Carbon Monoxide Exposure and/or Poisoning (All ages)[5]
- Complications of Abortion
- Congenital Hypothyroidism[4]
- Galactosemia[4]
- Hemophilia[4]
- Heavy Metal (Arsenic, Cadmium, Mercury) Exposure and/or Poisoning (All ages)[5]
- Lead Exposure and/or Poisoning (All ages)
- Pesticide-Related Illness or Injury (All ages)[5]
- Phenylketonuria[4]
- Reye's Syndrome
- Severe Traumatic Head Injury
- Severe Undernutrition (severe anemia, failure to thrive)
- Sickle Cell Disease (newborns)[4]
- 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 1-800-256-2748) or web based 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.
[4]Report to the Louisiana HIV/AIDS Program: see www.hiv.dhh.louisiana.gov for regional contact information, or call 504-568-7474.
[5]Report to the Section of Environmental Epidemiology & Toxicology: www.seet.dhh.louisiana.gov or 888-293-7020.

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