

# Louisiana Morbidity Report



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## MRSA in a NICU Louisiana, 2012

Christine Scott-Waldron, M.P.H.

### Background:

According to the Centers for Disease Control and Prevention (CDC), two million people get an infection while in a hospital, and approximately 90,000 people die from a hospital-acquired infection (HAI) per year. Methicillin Resistant *Staphylococcus aureus* (MRSA) is the most common multi-drug resistant pathogen in the health care setting whose isolates are resistant to all currently available B-lactam antibiotics, limiting the available treatment options for the infection.

First identified in the health care setting in the 1960s, MRSA has quickly been known for its ability to cause large outbreaks. The Agency for Healthcare Research and Quality produced a report in July 2007, stating that the number of hospitalizations associated with MRSA infection more than tripled between 2000 and 2005. MRSA infection can result in increased morbidity and mortality, as well as increased financial burden on the patient and health care institutions. The Society for Healthcare Epidemiology of America estimated in 2009 that the mean cost attributable to a MRSA infection ranged in models from \$47,092 to \$53,598.

*S. aureus* is a part of the human's natural bacterial flora, mostly colonizing the adult nasal cavity. Colonization is the presence

of MRSA on tissue without the presence of symptoms or clinical manifestations of illness or infection. A person who is colonized is considered a MRSA carrier. Approximately 20 percent to 40 percent of adults are colonized with this bacteria. This prevalence is higher in adults who work in the health care setting. Staff become colonized through direct contact with colonized or infected patients. MRSA can be carried by its host for long periods of time without causing clinical health effects.

The clinical manifestations of MRSA are typically mild skin infections, but can lead to serious deep tissue infections, abscesses, pneumonia and sepsis. The bacteria produce toxins that, if given the opportunity, can cause serious health consequences, such as toxic shock syndrome. Usually the bacteria are spread from the hands of an infected or colonized individual to the skin or wound of another individual. Therefore, the best prevention is through increased hand hygiene and use of personal protective equipment, such as gloves, masks and eye shields.

### Summary of Events:

In June 2012, the Infectious Disease Epidemiology Section (IDEPI), Department of Health and Hospitals (DHH), was notified of four cases of MRSA in a neonatal section of a hospital. An epidemiological investigation was initiated for additional case finding and laboratory testing. After additional cultures were collected, a total of eight cases of MRSA were identified, including five infants and three mothers. A MRSA outbreak is defined as three or more epidemiologically linked cases of MRSA occurring within a 30-day period, or a substantial increase in the number of MRSA cases from the typical rate.

The pulsed field gel electrophoresis (PFGE) laboratory test is a vital tool to document transmission in potential MRSA outbreaks. The technique divides the bacterial DNA of the isolate into fragments. Subsequently, an electric current is pulsed through a gel and the embedded fragments move across the gel. The movement leaves a pattern of bands, which can be compared to other isolates to determine the relatedness between the bacteria.

A PFGE test was conducted to further compare the isolates of MRSA. Within the eight cases, four separate isolates were identified that were common between three groups of cases or controls (Figure 1).

The hospital laboratory randomly selected additional isolates from the refrigerator to send to the DHH laboratory for PFGE comparison. Additionally, 30 staff members were screened by nasopharyngeal swabs; three of 30 people had MRSA isolates sent for PFGE testing.

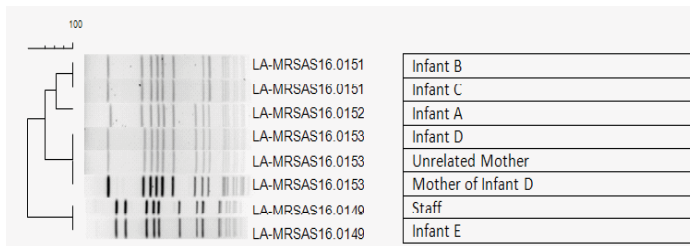
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Figure 1. PFGE Patterns - Louisiana, 2012



\* Mother of Infant B did not have an isolate available for PFGE testing

Infant A was infected with MRSA within 30 days of birth. The infant was born extremely premature, with 28 weeks of gestation via cesarean section, and had an umbilical catheter placed at birth. Infant A showed signs of a possible meningitis infection; however, the cerebral spinal fluid culture was negative for MRSA. One day later, a blood culture obtained from a peripheral arterial line had MRSA identified. Approximately two months later, a MRSA infection was found in a tracheal specimen from the infant. At five months of age, Infant A had superficial skin pustules on the abdomen. Infant A did not match any of the other MRSA patterns identified during this investigation.

Infant B and Infant C had MRSA cultures identified within one week of Infant A and two days apart of each other. The PFGE patterns of Infants B and C matched each other. Prior to the onset of the infection, Infant B and Infant C were placed in open cribs adjacent to each other in the neonatal intensive care unit.

Infant B was delivered via cesarean section and was born extremely premature, with less than 30 weeks of gestation, and had multiple health complications. Infant B required umbilical catheterization and ventilation at birth. The infant developed skin pustules on the thigh and suprapubic areas. Infant B's infection was treated with topical antibiotics and resolved prior to discharge.

The mother of Infant B was hospitalized with a MRSA infection at the cesarean section site within 10 days of Infant B's infection being identified, but the isolate was not available for PFGE testing; therefore, it is unknown if the mother matched any of the MRSA patterns identified during this investigation.

Infant C was born vaginally with 37 or more weeks of gestation and had respiratory distress syndrome due to transient tachypnea, (excess fluid in the infant's lungs). Infant C developed skin pustules on the back of the neck, forearm and chest. The infant's infection was treated with topical antibiotics and resolved prior to discharge.

Infant D had MRSA identified within seven days of Infants B and C. Infant D was delivered via cesarean section, with 37 or more weeks of gestation, and had respiratory distress syndrome. The mother of Infant D was diabetic and had a positive group B Streptococcal infection at the time of delivery, which placed the infant at risk for sepsis. Infant D had superficial skin pustules on the cheek at five days of age. The infant was treated with topical antibiotics and the skin infection resolved prior to discharge.

The MRSA pattern of Infant D matched a non-related mother who delivered within four days of Infant D's birth via cesarean section. Once the unrelated mother delivered, she had no future

contact with her infant or with any infants in the NICU. The unrelated mother had a severe MRSA infection, which was found in the urine and at the cesarean section wound site. She was admitted to the intensive care unit for sepsis after three days post operation, where wound care and intravenous antibiotics were administered. She was slowly improving, but was taken to the operation room for wound debridement.

The mother of Infant D was later admitted for a skin abscess one month after Infant D's infection was identified. The mother of Infant D was six weeks post partum and breast feeding at the onset of symptoms and had skin pustules on breast and leg. The mother was treated with incision, drainage and multiple antibiotics. The MRSA pattern matched the unrelated mother and infant D. The mothers delivered five days apart. They did not have any staff members or locations during their hospital stays in common. The mother of Infant D was a health care employee for another hospital.

An additional infant, E, was found to have a MRSA skin infection one month after Infant D. Infant E's PFGE pattern matched one of the randomly selected hospital employees screened a month earlier in the outbreak investigation. It is unknown what the infant and employee had in common, but this could be an example of a HAI being transmitted to a patient through direct contact with a colonized hospital employee.

Three out of 30 staff members were colonized with MRSA. The staff members were treated with topical mupirocin.

**Discussion:**

The PFGE patterns suggest two separate epidemiologically linked cases:

- Infant A was considered an independent infection with an unknown source.
- Infant B and Infant C had the same MRSA pattern; therefore, a HAI was transmitted via a vehicle (inanimate object or person) between the two infants. Infant B and Infant C were placed in pods next to each other in the NICU. It is unknown if Infant B acquired the infection and then a shared health care provider, or contaminated equipment, may have contributed to the infection being transmitted to Infant C.
- Infant D, mother of Infant D and a non-related mother had the same MRSA pattern; therefore, it is considered a HAI. The source

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of transmission is unknown. The mothers delivered five days apart, had different medical teams, delivered in different operation rooms and were admitted to different sections of the hospital, and had no known common link. The mother of Infant D had a MRSA infection post delivery. It is possible that the original infection transmission was between Infant D's mother and the non-related mother, and then Infant D gave the infection to the mother via breastfeeding. The vehicle between the two mothers is unknown.

#### Recommendations:

The main mode of MRSA transmission is through direct contact. Droplet transmission and environmental contamination are rare; therefore transmission can be drastically reduced through use of proper hand washing and personal protective equipment, such as gloves and gowns. The hospital community has a high prevalence of MRSA colonization; it is recommended to follow strict contact precautions in the neonatal setting. It is not useful to screen staff to determine their colonization status.

It is advised that once a patient is infected with MRSA, they are placed in contact isolation. This isolation is especially important in the neonatal setting, due to the close proximity of cribs and the immune-compromised status of the infants. The mother should wear gloves and a gown during direct contact and follow good hand hygiene to prevent the transmission between mother and child. Education is vital to the reduction of MRSA transmission. It should be clearly explained to patients and staff that the following

are important factors in decreasing MRSA transmission: frequent hand washing with antimicrobial soap, daily showers, avoidance of touching wounds or dressings, avoidance of sharing towels, clothes or other personal items that may contribute to transmission, and proper wound care.

The source of the infection is either a colonized or infected individual. The CDC advises against the preventative strategy of regularly decolonizing health care providers or new mothers. In recent studies, it has shown that MRSA quickly becomes resistant to the decolonizing agents and does not drastically reduce MRSA infection prevalence. The only situation when decolonizing is recommended is during an outbreak situation, where health care providers carry the same MRSA strain identified as the source of the outbreak.

The use of proper antibiotics and sensitivity testing is important in decreasing the antimicrobial nature of MRSA and other HAIs. Use of broad spectrum antibiotics, rather than infection specific antibiotics, increases the risk that strains of bacteria will become resistant and thus harder to treat. The Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America recommend implementation of a comprehensive hospital antimicrobial management program as a preventative strategy to reduce MRSA.

For the full text or more information, please contact Christine Scott-Waldron at (504) 568-8301 or [christine.scott-waldron@la.gov](mailto:christine.scott-waldron@la.gov).

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## Centers for Medicare and Medicaid Services Inpatient Prospective Payment System (CMS IPPS) Reporting Update

*Erica Washington, M.P.H.*

Hospitals licensed as acute care facilities must currently report the following infections to the Centers for Disease Control and Prevention's (CDC) National Healthcare Safety Network (NHSN): Central Line-Associated Bloodstream Infections (CLABSI) in adult and neonatal intensive care units; Catheter-Associated Urinary Tract Infections (CAUTI) in adult and neonatal intensive care units; and abdominal hysterectomy and colon surgeries.

Since January 2012, dialysis centers have been required to report CLABSI through NHSN. Beginning October 2012, long-term acute care hospitals (LTACHs) will have to report CLABSI and CAUTI, and inpatient rehabilitation facilities will begin to report CAUTI. Beginning January 2013, acute care hospitals will have additional reporting requirements including the following: MRSA Bacteremia/ *Clostridium difficile* and health care worker influenza vaccination. Surgical requirements for outpatient surgery and ambulatory surgery centers are under way but have yet to be announced.

CDC's partnership with CMS to complete infection reporting is a step toward transparency of health care-associated infection (HAI) data. Acute care hospitals are currently reported through [www.healthfinder.gov](http://www.healthfinder.gov). However, though Louisiana does not require mandatory reporting of HAI's to NHSN, hospitals are encouraged and incentivized by CMS to document infection surveillance through NHSN as part of the pay-for-reporting trend. Infectious

Disease Epidemiology's HAI program offers training and analytical assistance for facilities that are currently or are interested in participating in the CMS IPPS program.

Statewide NHSN trainings will be held for the third year in the following cities:

- October 22 from 9:00 a.m.-12:30 p.m. at East Bank Regional Library, Metairie
- October 30 from 8:30 a.m.- Noon at Willis-Knighton Bossier, Bossier City
- October 31 from 8:30 a.m.- Noon at the Region 6 Office of Public Health, Alexandria

A registration link for the NHSN trainings is available through the Healthcare-Associated Infections page on the Infectious Disease Epidemiology website (<http://new.dhh.louisiana.gov/index.cfm/page/824>). Past presentations, recordings and other resources are available on the same page according to healthcare provider type. Learnline on-demand recordings of NHSN trainings are available as well.

A dialysis training will be offered for outpatient dialysis centers and interested professionals on October 25 in Kenner, LA. The dialysis training will be presented by Network 13. Visit the HAI page for registration materials and further contact info. For questions on the HAI program, please contact Erica Washington at (504)568-8319 or email to [erica.washington@la.gov](mailto:erica.washington@la.gov).

# Department of Health and Hospitals Public Health Clinics Customer Satisfaction Surveys - Louisiana, 2012

*Jude Haney, Ph.D., M.P.H.*

The Customer Satisfaction Survey is a Likert Scale-type survey that asks patients about the quality of Department of Health and Hospitals (DHH) Office of Public Health (OPH) services they received at a clinic. The function of the Customer Satisfaction Survey is to find ways to enhance the quality of services provided to the patients/clients throughout Louisiana’s DHH OPH clinics. Overall, the purpose of the survey is to assess the customer service and perceived quality of services delivered at public health clinics throughout the state by allowing consistent feedback from the communities that they serve. This data will assist in assessing clinic efficiencies and management use of public health resources.

According to the surveys entered during State Fiscal Year (SFY) 2012, the majority of patients seen in the health units are female (83.2%). Fifty-two percent of the patients were African-American, followed by whites and Hispanics (42.2% and 3.2% respectively). The majority of the patients statewide came to the health units for WIC (Women, Infants and Children) services (62%), followed by Family Planning services (estimated at about 20%). There was not much change in the racial makeup of patients seen in the clinics throughout the year. There were variations in the number of surveys distributed, collected and entered into the system by time of year. The surveys are only distributed the first full week of the beginning of each quarter (Table 1).

Table 1: Comparison of Patient Numbers and Surveys Collected Louisiana, April 2011 and April 2012

	April 2011	April 2012
Average Number of Patients per Week*	11,829	11,087
Actual Number of Patients Surveyed for First Week of Month	4,585	4,592
Percent of Patients Surveyed	38.8	41.4

\* Data from COGNOS as of July, 16, 2012

The overall level of satisfaction between SFY11 and SFY12 showed a small increase. There were some small to moderate improvements in patients’ perceptions of services received at the clinics such as the ability to make appointments, or the number of patients able to receive services when needed (Table 2)

Table 2: Percent Comparison of Customer Satisfaction - Fourth Quarter Louisiana, SFY 11 and SFY 12

	SFY 11 4 <sup>th</sup> Quarter	SFY 12 4 <sup>th</sup> Quarter
Satisfied With Wait Time	80.5	82.1
Somewhat Satisfied With Wait Time	11.1	10.8
Not Satisfied With Wait Time	6.3	5.7
N/A Wait Time	2.1	2.1
Overall Satisfied With Services	92.8	93.3
Somewhat Satisfied With Services	4.0	3.3
Overall Not Satisfied With Services	1.7	2.0
N/A Services	1.5	1.4
Not Able to Make Appointment and Receive Services	2.6	1.0

### Conclusion

The findings suggest that the use of the Customer Satisfaction Surveys in the DHH public health units is a good way of measuring patients’ perceptions of the services they receive as well as monitor changes in these perceptions from quarter to quarter to see where public health services can be improved, specifically at the parish and clinical levels. Even though there have been some changes in service delivery in Louisiana public health units, the level of satisfaction among patients has remained relatively constant

For more information, please contact Dr. Haney at (504) 568-8191 or email to [jude.haney@la.gov](mailto:jude.haney@la.gov).

## Questions from Medical Professionals

### Cryptosporidium:

**I see more and more Cryptosporidium infections in my practice. What is going on?**

Surveys of the U.S. population showed that approximately two percent of the population in this country is infected with cryptosporidium. In Louisiana it would be safe to estimate that the infection rates are higher. At two percent, there could be 90,000 people infected in this state. The number of cases reported to the

Office of Public Health (OPH) is about 70 to 80 per year; this is about one case reported out of 1,000 cases.

### **So why is cryptosporidiosis reportable?**

Like some other infectious diseases, the purpose of reporting is not to estimate, count, or evaluate the burden of cryptosporidium infections; the main objective is to facilitate the identification of outbreaks. This has been proven to work well. If an infection is not reportable, then outbreaks are often ignored by the medical providers.

### **How come we see more cases these days?**

In past decades, the diagnosis was made on the microscopic examination of stools and the detection of oocysts. It required an

experienced microscopist. Currently, new test kits are widely used and make it easier to diagnose a cryptosporidium infection.

Cryptosporidium infection is transmitted by the fecal-oral route and results from the ingestion of Cryptosporidium oocysts through the consumption of fecally-contaminated food or water or through person-to-person or animal-to-person transmission. The oocysts are infectious immediately upon being excreted in feces.

The infectious dose is low; ingestion of as few as 10 to 30 oocysts has been reported to cause infection in healthy people. Certain infected persons have been reported to shed up to one billion oocysts in their stool per day and to excrete oocysts for up to 15 days after their symptoms have resolved.

Public drinking water is monitored regularly for contamination by enteric pathogens (coliform counts) and it would rarely be the cause of isolated cases. Private wells could be the source if they are not monitored by the owner. The sources of oocysts are so common that it is difficult to identify the sources responsible for an infection.

#### Legionellosis:

**I heard that there were two cases of Legionnaire's disease in town. What is the Department of Health doing about this?**

According to the Centers for Disease Control and Prevention (CDC) between one percent to five percent of all community acquired pneumonias are due to Legionella. This would translate to 130 to 500 cases of Legionellosis in Louisiana every year; however, only five to 15 cases are reported yearly. The main reason is that community-acquired pneumonias are treated empirically with antibiotics that are active on Legionella, so the diagnosis is seldom made. It would take a physician group that systematically looks for

Legionella antigen in the urine, for example, to create the impression of a sudden increase in Legionella infection.

When a new case is reported, Infectious Disease Epidemiology (IDEPI) looks at the basic demographics of the case as well as commonalities or clustering: geographical location of residence, age group, sex and time of onset. If there is any suspicion that some of the cases may be connected, an investigation is launched.

#### Reporting Infectious Diseases:

**For diseases such as cryptosporidiosis and legionellosis that are very common and seldom reported, what is the purpose of reporting them?**

The main reason to report some of these very common diseases is not to estimate the burden of disease, since reporting describe only a small fraction of the total, but to identify outbreaks.

In past incidences, for example:

- Reports of a few severe pneumonias led to an investigation of an outbreak of legionellosis linked to a misting of produce in a supermarket
- Reports of a few Listeria cases led to an investigation of hogs head cheese contamination in a production establishment
- Reports of gastro-enteritis lead to investigations that point to raw oyster consumption and lead to oyster bed closures
- Reports of Shigella have led to investigations leading to community outbreaks through schools and day cares that can only be controlled by implementing exclusion of infected cases and strict precautions and disinfection in schools and day care facilities.

For reporting forms and more information, please go to IDEPI's epidemiology manual at <http://new.dhh.louisiana.gov/index.cfm/page/531> or call (504) 568-8313.

## Announcements

### **Updates: Infectious Disease Epidemiology (IDEPI) Webpages**

<http://www.infectiousdisease.dhh.louisiana.gov>

**ANNUAL REPORTS:** A Comparison of Rates in Louisiana and Other Southern States, 1999-2010; Chlamydia; Disease Listing by Year, 1990-2011; HIV/AIDS; Legionella; Listeria; Lyme Disease; Measles (Rubeola); Pertussis; Rocky Mountain Spotted Fever (RMSF); Rubella; Summary of Reportable Diseases 2010-2012; Tetanus; Varicella; West Nile Encephalitis (WNV-NID)

**EPIDEMIOLOGY MANUAL:** Chagas Investigation Form; *E. Coli* Summary; Encephalitis Summary; Haemophilus Influenzae; Haemophilus Influenzae Summary; Hand, Foot and Mouth Public Information; Hansen's Disease (Leprosy) Summary; HIV Summary; Legionellosis Hypothesis-Generating Questionnaire-CDC; Mumps; Norovirus Summary; Pediculosis Summary; Plague Summary; Rubella; Salmonellosis Summary; Scabies Summary; Shigella Sum-

mary; Shingles Public Information; Streptococcal Infection Group B Summary; Tuberculosis Summary; West Nile Virus Summary  
**FOOD/WATERBORNE:** Is rinsing Your Sinuses Safe?-FDA; *Naegleria fowleri* - Primary Amebic Meningoencephalitis (PAM)-CDC; Epidemiology of *Naegleria fowleri* Infections-CDC

**HEPATITIS:** Guidelines for Viral Hepatitis Surveillance and Case Management -CDC; Know More Hepatitis: New CDC Guidelines for Baby Boomers; Partner Letter-Recommendations for the Identification of Chronic Hepatitis C Virus Infection Among Persons Born During 1945-1965

**INFLUENZA:** Evaluation of Rapid Influenza Diagnostic Tests for Influenza A (H3N2)v Virus and Updated Case Count-United States, 2012 (MMWR); Health Alert Network - Influenza A H3N2v by State; Increase in Influenza A H3N2v Virus Infections in Three U.S. States-CDC Health Advisory; Influenza Surveillance and Influenza A(H3N2)v Testing; Laboratory Form 96; Weekly Report

**VETERINARY:** Common Veterinary Infections, Second Quarter, 2012- Canine

**WEST NILE VIRUS:** Louisiana Arbovirus Surveillance Summary-2012; West Nile Story

## Shiga Toxin Producing *Escherichia coli* O145; A Multi-State Outbreak - Louisiana, 2012

Erin Delaune, M.P.H.

In May 2012, five cases of shiga toxin producing *Escherichia coli* (STEC) cases were reported to the Infectious Disease Section (IDEPI) of the Department of Health and Hospitals (DHH). *E. coli* O157 and other shiga toxin producing *E. coli* infections are class B diseases; reporting is required within one business day. Follow-up is conducted on all STEC cases to determine possible sources of infection. Isolates or broths were submitted to the DHH Public Health (PH) Laboratory for confirmation and Pulse Field Gel Electrophoresis (PFGE). PFGE is the process used to determine if the *E. coli* bacteria are the same strain and PFGE results help epidemiologist to determine if they have single cases of *E. coli* or an outbreak of *E. coli*. The laboratory confirmed all isolates to be shiga toxin producing *E. coli* non-O157 with matching PFGE patterns. These PFGE patterns matched *E. coli* O145 cases from other states. This was a multi-state outbreak of shiga toxin producing *E. coli* O145.

The Center for Disease Control and Prevention's (CDC) definition of a multi-state outbreak is two or more cases of a similar illness resulting from exposure to a common source, which occurred in multiple states. The CDC coordinates the follow-up of multi-state outbreaks. Once notified of their cases, state epidemiologists obtain exposure information from their cases and send the information to the CDC, where epidemiologists analyze exposure histories of cases from all states involved. At the conclusion of this outbreak, there were 18 cases from nine different states.

Of the Louisiana cases, 89% were female. The average age was 38 years with a range of one year to 79 years. Illness onset ranged from the end of April to the middle of May. Sixty percent of the cases were hospitalized and one case died.

Unfortunately, the source of the infections was not identified from the exposure histories obtained from the cases.

It can be challenging to determine the source of an outbreak. Complete exposure histories can be difficult to obtain, especially if the illness onset was weeks before follow-up was conducted. Food as a source of an *E. coli* infection can be hard to pinpoint. *E. coli* bacteria have been isolated from commonly eaten food items; this makes food frequency data difficult to interpret. Reported *E. coli* outbreaks associated with commonly eaten food items include romaine lettuce, clover sprouts, spinach and beef. The coordination of multiple parties is necessary for a successful *E. coli* outbreak investigation. Timely reporting of cases by hospitals and labs is necessary for IDEPI to follow up with the cases to determine possible exposures. Isolate and broth submission to DHH's Laboratory is strongly encouraged for confirmation of the bacteria and for PFGE. This knowledge is crucial for epidemiologists and their investigation into the source of the illnesses.

For more information, please go to webpage <http://new.dhh.louisiana.gov/index.cfm/page/791> or contact Erin Delaune at (504) 568-8316 or email to [erin.delaune@la.gov](mailto:erin.delaune@la.gov).

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## Collaboration Against West Nile Virus – Louisiana, 2012

After the City of New Orleans Mosquito and Termite Control Board (NOMTCB) reported the detection of West Nile virus in mosquitoes collected in Orleans Parish, the New Orleans Fire Department (NOFD), New Orleans Recreational Department (NORD), the Sanitation Department, and the Department of Health and Hospitals infectious disease epidemiologists (IDEPI) partnered with NOMTCB to canvass areas of Algiers (NOFD's 8th District), informing citizens about mosquito and West Nile virus prevention. (The NOFD also informed the public on the importance of using smoke detectors.)

For more information about West Nile Virus, please go to <http://new.dhh.louisiana.gov/index.cfm/page/539>.



Photo: From left to right: Megan Nuismer, IDEPI; Angelo Anderson, NOMTCB; Jenna Iberg Johnson, IDEPI; Timmy Madere, NOMTCB  
New Orleans - July 3, 2012

Table: Communicable Disease Surveillance, Incidence by Region and Time Period, July-August, 2012

DISEASE	HEALTH REGION									TIME PERIOD				
	1	2	3	4	5	6	7	8	9	Jul-Aug 2012	Jul-Aug 2011	Jan-Dec 2012 Cum	Jan-Dec 2011 Cum	Jan-Dec % Chg*
	<b>Vaccine-preventable</b>													
Hepatitis B Cases	0	1	0	3	0	1	1	0	3	9	8	36	37	NA*
Hepatitis B Rate <sup>1</sup>	0	0.2	0	0.6	0	0.3	0.2	0	0.8	0.2	0.2	0.8	0.9	NA*
Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Mumps	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Rubella	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Pertussis	3	6	2	0	0	0	3	0	2	16	2	33	18	83.3
<b>Sexually-transmitted</b>														
HIV/AIDS Cases <sup>2</sup>	20	21	2	8	2	0	2	9	7	71	239	657	886	-25.8
HIV/AIDS Rate <sup>1</sup>	2.0	3.6	0.5	1.5	0.7	0.0	0.4	2.6	1.6	1.6	5.5	15	20.3	NA*
Chlamydia Cases <sup>3</sup>	622	333	136	443	171	185	554	267	214	2,925	4,862	14,269	18,924	-25.0
Chlamydia Rate <sup>1</sup>	74.5	50.2	33.4	75.8	58.4	59.7	101.8	75.1	39.5	64.5	107.2	314.8	417.4	N/A
Gonorrhea Cases <sup>3</sup>	367	103	20	152	46	47	200	105	43	1083	1,364	4,408	5,344	-17.5
Gonorrhea Rate <sup>1</sup>	43.9	15.5	4.9	26.0	15.7	15.2	36.7	29.5	7.9	23.9	30.1	97.2	117.9	N/A
Syphilis (P&S) Cases <sup>3</sup>	5	7	2	6	2	3	13	1	1	40	77	188	283	-33.6
Syphilis (P&S) Rate <sup>1</sup>	0.6	1.1	0.5	1.0	0.7	1.0	2.4	0.3	0.2	0.9	1.7	4.1	6.2	N/A
<b>Enteric</b>														
Campylobacter Cases	1	4	2	3	1	3	5	3	5	27	29	106	147	-27.9
Hepatitis A Cases	0	0	0	1	1	0	0	0	0	2	0	4	2	NA*
Hepatitis A Rate <sup>1</sup>	0	0	0	0.2	0.4	0	0	0	0	0	0	0.1	0	NA*
Salmonella Cases	26	39	38	74	15	14	17	28	46	297	479	845	933	9.4
Salmonella Rate <sup>1</sup>	2.5	6.9	10.1	14.3	5.6	4.6	3.4	8.0	11.9	6.9	11.1	19.6	21.6	NA*
Shigella Cases	5	7	1	9	1	1	1	0	1	26	120	128	316	-59.5
Shigella Rate <sup>1</sup>	0.5	1.2	0.3	1.7	0.4	0.3	0.2	0.0	0.3	0.6	2.8	3.0	7.3	NA*
Vibrio cholera Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Vibrio, other Cases	3	1	1	0	0	0	0	0	0	5	16	35	42	-16.7
<b>Other</b>														
<i>H. influenzae (other)</i>	2	5	0	1	0	1	0	0	0	9	4	39	40	NA*
<i>N. Meningitidis</i>	0	0	1	0	0	0	0	0	0	1	1	3	9	-66.7

<sup>1</sup> = Cases Per 100,000.

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

<sup>3</sup> = Preliminary data.

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

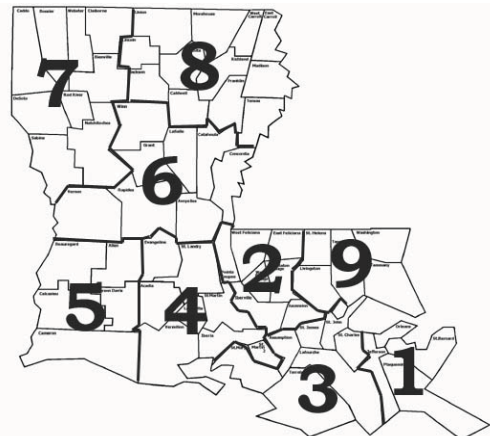
Table 2. Diseases of Low Frequency, January-December, 2012

Disease	Total to Date
Legionellosis	17
Lyme Disease	0
Malaria	5
Rabies, animal	2
Varicella	40

Table 3. Animal Rabies, July-August, 2012

Parish	No. Cases	Species
Desoto	1	Skunk

Figure: Department of Health and Hospitals Regional Map



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

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

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

Arthropod-Borne Neuroinvasive Disease and other infections (including West Nile, St. Louis, California, Eastern Equine, Western Equine and others)	Hepatitis A (acute disease)	Malaria
Aseptic meningitis	Hepatitis B (acute illness & carriage in pregnancy)	Mumps
Chancroid <sup>1</sup>	Hepatitis B (perinatal infection)	Pertussis
Escherichia coli, Shig-toxin producing (STEC), including E. coli 0157:H7	Hepatitis E	Salmonellosis
Hantavirus Pulmonary Syndrome	Herpes (neonatal)	Shigellosis
Hemolytic-Uremic Syndrome	Human Immunodeficiency Virus [(HIV), infection in pregnancy] <sup>2</sup>	Syphilis <sup>1</sup>
	Human Immunodeficiency Virus [(HIV), perinatal exposure] <sup>2</sup>	Tetanus
	Legionellosis (acute disease)	Tuberculosis <sup>2</sup>
		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) <sup>3</sup>	Gonorrhea <sup>1</sup>	Staphylococcal Toxic Shock Syndrome
Blastomycosis	Hansen Disease (leprosy)	Streptococcal disease, Group A (invasive disease)
Campylobacteriosis	Hepatitis B (carriage, other than in pregnancy)	Streptococcal disease, Group B (invasive disease)
Chlamydial infection <sup>1</sup>	Hepatitis C (acute illness)	Streptococcal Toxic Shock Syndrome
Coccidioidomycosis	Hepatitis C (past or present infection)	Streptococcus pneumoniae, penicillin resistant [DRSP], invasive infection]
Cryptococcosis	Human Immunodeficiency Virus [(HIV syndrome infection)] <sup>2</sup>	Streptococcus pneumoniae (invasive infection in children < 5 years of age)
Cryptosporidiosis	Listeria	Transmissible Spongiform Encephalopathies
Cyclosporiasis	Lyme Disease	Trichinosis
Dengue	Lymphogranuloma Venereum <sup>1</sup>	Varicella (chickenpox)
Ehrlichiosis	Psittacosis	Vibrio Infections (other than cholera)
Enterococcus, Vancomycin Resistant [(VRE), invasive disease]	Rocky Mountain Spotted Fever (RMSF)	
Giardia	Staphylococcus aureus, Methicillin/Oxacillin Resistant[( MRSA), invasive infection]	

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

Cancer	Hemophilia <sup>4</sup>	Severe Undernutrition (severe anemia, failure to thrive)
Carbon Monoxide Exposure and/or Poisoning <sup>5</sup>	Lead Exposure and/or Poisoning (children) <sup>4</sup> (adults) <sup>5</sup>	Sickle Cell Disease (newborns) <sup>4</sup>
Complications of Abortion	Pesticide-Related Illness or Injury (All ages) <sup>5</sup>	Spinal Cord Injury
Congenital Hypothyroidism <sup>1</sup>	Phenylketonuria <sup>4</sup>	Sudden Infant Death Syndrome (SIDS)
Galactosemia <sup>4</sup>	Reye's Syndrome	
Heavy Metal (Arsenic, Cadmium, Mercury) Exposure and/or Poisoning (All ages) <sup>5</sup>	Severe Traumatic Head Injury	

Case reports not requiring special reporting instructions (see below) can be reported by mail or facsimile on Confidential Disease Report forms (2430), facsimile (504) 568-8290, telephone (504) 568-8313, or 1-800-256-2748 for forms and instructions.

<sup>1</sup>Report on STD-43 form. Report cases of syphilis with active lesions by telephone, within one business day, to (504) 568-8374.

<sup>2</sup>Report to the Louisiana HIV/AIDS Program: Visit www.hiv.dhh.louisiana.gov or call 504-568-7474 for regional contact information.

<sup>3</sup>Report on CDC72.5 (f.5.2431) card

<sup>4</sup>Report to the Louisiana Genetic Diseases Program and Louisiana Childhood Lead Poisoning Prevention Programs: www.genetics.dhh.louisiana.gov or call (504) 568-8254.

<sup>5</sup>Report to the Section of Environmental Epidemiology and Toxicology: www.seet.dhh.louisiana.gov or call 1-888-293-7020

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