Hurricanes Katrina and Rita

Effect on the State of Louisiana will be published starting with the November-December, 2005 issue of the Louisiana Morbidity Report.

Raccoons and Human Disease

Gary Balsamo, DVM MPH &TM; Christine Romalewski, MPH

Raccoons, (scientific name Procyon lotor), are one of the most recognizable of Louisiana’s wildlife species with the black mask across the face and the bushy ringed tail being noted characteristics of this forest mammal. The small, slender forepaws that resemble human hands and lend themselves to the animal’s unusual dexterity are another unique trait. This dexterity enhances the animal’s ability to breach intended barriers and pilfer food from unlikely locations.

Raccoons are both omnivorous and opportunistic. Although their natural diet consists of plants (fruits, grains, nuts and tubers) and animals (invertebrates such as crayfish, insects, rodents, frogs and bird eggs), raccoons are also often observed feasting upon “road-kill” along highways. In addition these animals readily adapt their diets to include suburban and urban trash and other human-provided foods, such as pet food. The animal’s attraction to suburban and urban food sources, their familiar attractive appearance and seemingly social nature often result in increased contact with humans.

The raccoon’s tendency to share human environments for the purpose of seeking food is intensified by human intrusion, (urban sprawl), into wildlife areas. This human movement into previous forest, agricultural or wilderness habitats increases the risk of transmission of zoonoses or zoonotic diseases, diseases directly or indirectly transmissible to humans from vertebrate animals, especially from animals that adapt easily to human settings. Destruction of natural habitat also serves to drive wild species into human inhabited areas or areas directly adjacent to human dwellings. The ability of raccoons to prosper living amongst us is extremely important in the epidemiology of two important diseases, the raccoon roundworm and rabies, the deadly virus that brings a fatal result in virtually all human cases.

Baylisascaris procyonis

The proximity of raccoons to humans is not only of concern relative to rabies but is also important in transmission of a parasitic disease caused by the raccoon roundworm, Baylisascaris procyonis. The parasite is transmitted to humans and other animal hosts by the oral consumption of eggs. Infected raccoons can shed millions of eggs each day in their feces. Raccoon “latrines”, or defecation sites, are potentially dangerous, especially to children. These latrines are commonly found at the base of trees, on fallen logs, stumps, wood-
piles, decks, rooftops, in attics, garages and haylofts. Many latrines are located near swimming pools, hot tubs, or ornamental ponds.

Soon after ingestion of eggs, the larvae hatch in the small intestine and migrate via the portal system to several organs. The most severe effect of infection in humans is fatal encephalitis, but infection may also result in ocular larva migrans and visceral larva migrans, both with associated signs and symptoms. The entire spectrum of clinical signs and symptoms is not known and asymptomatic infections are almost certainly a component of that disease spectrum.

Besides humans, more than ninety North American terrestrial animals and birds are considered accidental or intermediate hosts of *Baylisascaris procyonis* and cannot transmit the parasite in the feces. Dogs can function as both definitive and intermediate hosts and can pass eggs in the feces.

To date, no raccoons infected with *Baylisascaris procyonis* have been identified in Louisiana. The parasitic infection is very common in raccoons in the Midwest, Northeast and Middle Atlantic regions. Recently the disease has been found to be common in certain areas of California and has been identified in a fairly large percentage of trapped raccoons (22%, 11/50) in the Atlanta, Georgia area, a district previously thought to be free of the parasite. Prevalence of this disease is likely far greater than what has been reported. This historical record of geographic spread illustrates the potential for spread into or the discovery of the disease in raccoons in Louisiana. In 2004, the Louisiana Office of Public Health (OPH) received a report of the diagnosis of *Baylisascaris procyonis* in a Louisiana child with refractory encephalitis. Although no information regarding travel history was received, this incident may further indicate that the population of Louisiana is at risk.

The best method for prevention of human exposure to raccoons and parasites from raccoons is to avoid direct contact with the animals and their feces. Raccoons should be discouraged from inhabiting parks or residential areas by preventing access to food, closing off access to attics and basements, keeping sandboxes covered at all times, removing fish ponds, removing bird feeders, covering trash containers and clearing brush. The United States is also advised to avoid raccoon latrines and to practice extreme care in cleaning areas contaminated with raccoon feces (guidelines for cleaning can be found on the CDC website). Animal control authorities, if available, should be alerted to problems with nuisance raccoons.

**Rabies**

Dogs are no longer the principal disease vectors of rabies in the United States. The principal disease vectors are several species of wildlife, including raccoons, skunks, foxes, coyotes and bats. Several strains of rabies virus exist, with the individual strains being maintained in nature in one predominant species within geographically discrete regions. Louisiana, like all forty-eight contiguous states, is affected by varied strains of bat rabies. The prevalent form of terrestrial rabies is a skunk variant that has been identified in most of north Louisiana and southwest Louisiana from the Louisiana/Texas line to the Atchafalaya River. (Figure 1) Cases do occur in other wildlife species within areas endemic for specific variants; however the disease rarely becomes endemic in these other species. For example, several cases of rabies have been identified in raccoons in Louisiana, but the variant primarily maintained in skunks has been identified as the strain involved. Bats also infect terrestrial species. Thus raccoons, (although raccoon strain rabies is not currently present in the state), are considered likely vectors of this deadly disease.

**Figure 1. Rabies variants - Louisiana, 2005**

![Rabies variants](image)

Although raccoon variant rabies has not yet been identified in Louisiana, the disease may be poised to move into the state within the next few years. In the late 1970s, raccoon variant rabies was only found in the extreme southeastern United States, primarily Florida. Since then the disease has been transported to an area along the West Virginia-Virginia border. This translocation, brought about by the transfer by humans of infected raccoons, initiated two separate foci of the raccoon strain. In the past thirty years the two foci have grown together and expanded. This raccoon variant rabies epizootic now extends throughout the Eastern seaboard of the United States and into areas of Canada. (Figure 2.)
In 1992, the Wildlife Services component of the United States Department of Agriculture, Animal Plant Health Inspection Services initiated an oral rabies vaccine (ORV) program and an enhanced surveillance program intended to curtail the spread of the raccoon rabies variant. The ORV program, consisting of dispersal, often by air, of rabies vaccine in palatable “biscuits”, has been employed in Maine and Canada, from Lake Erie in Ohio and Pennsylvania south along the Appalachian ridge through West Virginia and Virginia to Tennessee and in Georgia and Alabama. In Louisiana, the Washington and St. Tammany Parishes are now in a zone of enhanced surveillance for westward spread of the raccoon strain.

Summary

The emphasis on containing the raccoon rabies variant is a result of the perceived social nature of raccoons and the animal’s adaptability. Raccoons are able to prosper in fairly high densities in urban and suburban areas. Humans often seek contact with raccoons by offering food or attempting to caress or pet the animals. People are often entertained by raccoons and will encourage raccoons, knowingly or unknowingly, to inhabit peri-domestic areas. This potential for increased contact with a known raccoon vector could result in increased disease exposure in pets and potentially, in humans.

Raccoons are attractive and valuable components of nature, but they are not pets and should never be kept or fed. These animals should be enjoyed at a distance. Human migration into previously wild areas complicates the problem. Although both of the diseases associated with raccoons are considered rare in humans, one should remember that in the wild animal host, both diseases can be very common. Any increase in contact with raccoons brings the possibility of transmission and potentially disastrous consequences.

For references or more information, please contact Dr. Gary Balsamo at gbalsamo@dhh.la.gov.

Promoting Safe Sleep Environment:  
Will it Make A Difference?

Tracy Hubbard, MPH MCE; Jean Takenaka, MD;  
Robert Beckerman, MD FAAP; Juan Acuna, MD

Background

Sudden Infant Death Syndrome (SIDS) is defined as the sudden and unexpected death of an infant (<12 months of age) which cannot be explained by complete review of the historical facts, medical history, death scene investigation and a thorough post mortem examination (complete autopsy, toxicology and skeletal x-rays). Although the cause of SIDS is unknown, a number of factors have been associated with increased risk of SIDS. Studies have shown that infants who are placed prone (on the stomach) to sleep are at a higher risk of SIDS, than infants who are placed supine (on the back) to sleep. Side sleep poses a risk of SIDS that is intermediate between prone and supine. Other risk factors include maternal smoking during pregnancy, exposure to soft bedding, uniform sleeping surfaces, unsafe sleeping environments (i.e. sofas, pillows, futons, comforters, bulky blankets and bed sharing of infants with multiple partners) and overheating of infant (i.e. overdressing, swaddling, caps and high bedroom temperatures, especially when the infant may have a viral illness with fever). Demographic and epidemiological factors associated with increased risk of SIDS include the Black and Native American races, young parental age, low socioeconomic status, low parental educational level and lack of prenatal care.

In 1992, the American Academy of Pediatrics (AAP) initially recommended that healthy infants be placed supine or on their side to sleep to reduce the risk of SIDS. In 2000, the AAP’s recommendation was changed to recommend only back sleeping position. In 1994, the AAP, SIDS Alliance and National Institute of Child Health and Development (NICHD) implemented the national “Back to Sleep” (BTS) Campaign. From 1992-2002, the incidence of SIDS has declined by fifty percent in the United States, from 1.3 SIDS deaths per 1,000 to 0.6 per 1,000. The rate of decline in SIDS in Black infants, however, still remains two to three times higher than in Caucasian infants. It is unclear why this racial disparity exists.

In Louisiana, the SIDS death rate declined from 1.4 per 1,000 to 1.0 per 1,000 from 1992-2002 (Figure 1).
The SIDS incidence in 2002 was 1.4 per 1,000 in Louisiana’s Black infants vs. 0.9 per 1,000 in the White infant population. (Figure 2).

**Figure 2**: Sudden infant death syndrome (SIDS) rates by race and year United States and Louisiana, 1992-2002

![Graph showing SIDS rates by race and year](image)

In 2002, the United States reported approximately 2,300 SIDS deaths of which, Louisiana reported sixty-five SIDS deaths. Continued prone sleeping of Black infants, despite the BTS Campaign, along with the cultural phenomenon of unsafe bed sharing, have both contributed to the lower than expected declines in deaths for Black infants of low socioeconomic status in Louisiana and the United States. A social marketing campaign was implemented in Louisiana in 2002 in order to promote increased awareness of the importance of a safe sleeping environment. A thirty-second television spot “This Side Up” was developed and paid media was placed in seven Louisiana media markets statewide (New Orleans, Baton Rouge, Lafayette, Lake Charles, Alexandria, Shreveport and Monroe) from August, 2002 through October, 2004. Other efforts implemented to reach high risk populations include special events, community and medical profession outreach and development and distribution of low literacy educational materials (educational cards and posters). Efforts within Louisiana have raised the question: Did the social marketing campaign have an impact on knowledge, awareness, beliefs and practices related to SIDS and its risk factors among the high risk target population?

**Methods**

A baseline quantitative ten minute (+/- 4 minutes) telephone survey was conducted in 2002 with a follow-up survey conducted in 2004. Data was gathered from a representative sample of Louisiana women (n=400) ages eighteen to twenty-nine years, with household incomes ≤ $29,000. Only results significant at an alpha level less than 0.05 are reported.

**Results**

From 2002 to 2004, the mention of SIDS as the most common cause of unexpected infant death in Louisiana has increased from fifty-eight percent in 2002 to sixty-four percent in 2004. The number of Louisiana women who do not recall SIDS or crib death without prompting has decreased since the last assessment from thirty-two percent to twenty-three percent. Louisiana women who believe lying babies on their backs is the best option for sleep have increased from thirty-seven percent in 2002 to sixty percent in 2004.

Louisiana women who believe back sleeping is the safest have increased from forty-two percent in 2002 to twenty-three percent in 2004. The number of Louisiana mothers that are placing their babies to sleep on their backs has increased from thirty-four percent in 2002 to fifty percent in 2004. Louisiana mothers are now more apt to lay a baby down to sleep in a crib (from 71% to 78%) versus a bed or other location. Placement of soft bedding items in the sleep area have decreased. Placement of pillows has decreased from forty-three percent to twenty-three percent and comforters in the sleep area have decreased from thirty-eight percent to eighteen percent. (Figure 3).

**Figure 3**: Babies who sleep with soft bedding Louisiana, 2002-2004

![Graph showing babies who sleep with soft bedding](image)

**Discussion**

Despite the success of the national “Back to Sleep” Campaign, standard forms of communication used by campaign (brochures and media) have been less effective in promoting behavior changes in low socioeconomic families. Therefore, alternative methods of communication are necessary to reduce the racial disparity that presently exists in SIDS deaths. Data from this study have shown that in Louisiana, awareness of SIDS has increased and positive changes in behaviors related to SIDS risk factors have occurred in low socioeconomic status populations as a result of a culturally competent, diverse and appropriate social marketing campaign and outreach efforts. A comprehensive approach is essential to impact hard-to-reach populations with public health messages that promote behavior change.

**Stroke in Louisiana, 2002**

The Centers of Disease Control and Prevention (CDC) analyzed data for 2002 from the Behavioral Risk Factor Surveillance System (BRFSS) concerning the total number of stroke deaths, age-adjusted death rate, mean age at death, percentage of stroke dece
dents over the age of sixty-five years and the years of potential life lost prior to age seventy-five by state/area for the fifty states and the District of Columbia. There were 162,672 stroke victims in the United States at a rate of 56.2 per 100,000 population (55.9-56.5, 95% CI). From this number, Louisiana had 2,595 at a rate of 63.0 per 100,000 population (60.6-65.4 95% CI) which places the state in the top twenty-three percent for rate. The state with the lowest rate was New York at 37.4 (36.6-38.2 95% CI) and the highest rate was Arkansas at 74.3 (71.3 – 77.4 95% CI).

Louisiana (18.2%) was second to the District of Columbia (18.3%) for having the highest percentage of victims less than sixty-five years of age. Iowa at 6.3%, had the lowest percentage. Louisiana had the third lowest mean age at 76.6 years (76.0 -77.1 95% CI) following Alaska 75.5 years (73.3-77.7 95% CI) and New Hampshire 75.8 (74.9 – 76.8 95% CI). North Dakota had the highest mean age at 83.4 years (82.5-84.4). For the year 2002, there were 13,675 years of potential life lost before the age of seventy-five years for Louisianans.
The southern region of the U.S. claims the states with the highest proportion of stroke deaths occurring prior to the age of sixty-five years of age. Differences in lifestyle and stroke risk factors may account for the variations among states and these variations have been associated with region and race.

Despite declines in deaths from stroke, stroke remained the third leading cause of death in the United States in 2002 and age-adjusted death rates for stroke remained higher among Blacks than Whites. Premature death is only part of the health impact of strokes in young and middle-aged adults. The reduction of stroke risk is also needed to lessen stroke disability numbers, thereby improving both the quality of life and life expectancy.

Community-Associated Methicillin Resistant Staphylococcus Aureus: Nasal Carriage Prevalence in New Orleans, 2005
Peter Vranken RN DPH MBA; Shahzad Malik, MD

In the first half of 2005, the Louisiana Office of Public Health, in collaboration with the Tulane Health Sciences Center, conducted a survey to assess the prevalence of community-associated Methicillin Resistant Staphylococcus Aureus (MRSA) nasal carriage in the New Orleans population.

MRSA infections or colonization have traditionally occurred in persons with a history of health care exposure. “Hospital-associated” MRSA infections have occurred since the 1960s and have required increasingly aggressive control strategies. However, MRSA infections and colonization are now also occurring outside the health care environment, affecting persons with none of the previously known risk factors. “Community-associated” MRSA is clearly on the increase and may require that the rigorous control of MRSA in health care settings, with all the associated efforts and costs, be revisited.

The study was conducted among voluntary participants, recruited from three different locations in New Orleans. Only participants without a history of recent health care exposure (12 months) were enrolled in the study. Participation consisted of a single lab test (culture from nasal swab) to detect MRSA nasal carriage and the filling out of a questionnaire for risk factor information.

Out of 259 study participants, three had MRSA nasal carriage, resulting in a prevalence of 1.16% (95% CI 0.2-3.3). Hence, the prevalence of community-associated MRSA in New Orleans remains low, suggesting that MRSA remains, at least for now, a problem that is predominantly health care related. Further analysis of the study data is ongoing and a full report of the study findings will be published in a peer-reviewed journal at a later stage.

Influenza in Louisiana-An Analysis of Sentinel Surveillance Data, 1998-2004
Erin Stanley MPH; Theresa Sokol MPH; Cathy Scott MT-ASCP, MPH; Raoult Ratard, MD MPH&TM

Adapted from The Journal of the Louisiana State Medical Society July-August, 2005

It is estimated that between 450,000 and 900,000 Louisiana residents become infected with influenza each year. On average, 1700 to1800 Louisianans are hospitalized and 500 to 600 die each year due to influenza related complications. The case definition of an influenza-like illness (ILI) includes having a temperature greater than or equal to 37.8 °C or 100 °F with upper respiratory tract infection symptoms (cough, sore throat).

Because influenza infections are so common, influenza activity in Louisiana is monitored through a sentinel surveillance system rather than through passive surveillance. Healthcare providers report the number of patient visits presenting with influenza like illness on a weekly basis.

The Louisiana Office of Public Health (OPH) collects information from four types of sentinel surveillance sites: schools, nursing homes, physician’s offices and hospital emergency rooms. The number of sentinel sites in Louisiana varies slightly from year to year. Currently, there are approximately fifty physicians, nineteen schools, thirty hospitals and twenty nursing homes participating in the influenza sentinel surveillance system. Between October and mid-May, each site reports numbers of ILI cases and denominator data to OPH on a weekly basis. The cases are categorized into four age groups: newborn to four years (preschoolers), five to twenty-four years (school age children/adolescents), twenty-five to sixty-four years (adults), and those sixty-five or older (older adults). For school data, the denominator is the student enrollment; for nursing homes, it is the number of residents; for physician’s offices, it is the number of patients seen for any reason. Hospitals do not provide denominator data.

There are approximately 900 physicians throughout the U.S. that participate in the sentinel surveillance system. This data is used by the Centers for Disease Control and Prevention (CDC) as one component in monitoring influenza activity throughout the country. The ILI activity each week is compared to the national baseline of 2.5% to determine if the season has started. Through sentinel surveillance, it can be determined if the number of ILI cases is increasing or decreasing. However, the number of people infected with influenza during a season cannot be determined.

To obtain regional data, the number of ILI cases seen from each physician in a region were combined. The denominator for the percentage of ILI cases seen was the total number of patient visits that week as reported by the physician. Because the number of sentinel physician sites changes from season to season and varies across regions, it was more accurate to use the percentage of ILI cases seen as opposed to the number of ILI cases reported (Figure 1).

Figure 1: Influenza seasons by sentinel physician site Louisiana 1998-2004

Percentage of ILI Cases Among Total Physician Visits

% of ILI cases among total
0 2 4 6 8 10 12

Month/Week/Year

(Continued on page 6)
Regional Data

Region 3 (Figure 2) reported the highest intensity for two seasons and had the second highest intensity for two seasons (Table 1).

Figure 2: Office of Public Health regions - Louisiana, 2005

Table 1: Influenza seasons by region - Louisiana, 1998-2004

<table>
<thead>
<tr>
<th>Season</th>
<th>Intensity of Season (%)</th>
<th>Start of Season by Regional Number</th>
<th>End of Season by Regional Number</th>
<th>Duration of Season (Weeks)</th>
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</thead>
<tbody>
<tr>
<td>1999-2000</td>
<td>76.24 0.174 8.480 2388</td>
<td>Early: 8 1 Late: 9 1</td>
<td>Early: 8 1 Late: 9 1</td>
<td>215 4.272</td>
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<tr>
<td>2000-2001</td>
<td>57.78 0.220 4.800 6902</td>
<td>8 7 9 1</td>
<td>4.444 1.15 4.896</td>
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<tr>
<td>2001-2002</td>
<td>2.466 0.074 1.524 6217</td>
<td>7 2 1 7 1</td>
<td>11 42 4.272</td>
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<tr>
<td>2002-2003</td>
<td>6.211 0.086 3.000 8928</td>
<td>1 5 3 1</td>
<td>15.966 2.20 5.897</td>
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<td>2003-2004</td>
<td>8.928 0.382 5.752 21600</td>
<td>9 1 8 1</td>
<td>10.778 8.15 3.114</td>
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</tr>
</tbody>
</table>

Discussion

From this analysis, it appears that Louisiana’s flu season starts about the same time as the national flu season (which is not consistent with the conventional thought that the flu season starts later in the south compared to the rest of the nation - no formal citation available). There is no consistent trend dictating when the peak of the season occurs.

For Louisiana, there is no clear trend in the start of the flu season, which varies from year to year and can range from October to December. The start of Louisiana’s seasons ranged from one week (during the 2002-2003 season) to two months (2001-2002 season) before the national start date. There is also no clear trend in the ending of the flu season for Louisiana, ranging from December to March. Trend data suggest that starting influenza surveillance in October may be too late. If surveillance starts shortly before the season, the baseline for influenza activity cannot be established and the start of the season may not be captured by the surveillance system. Likewise, having surveillance end in March, as was the case in previous years (Table 1), may be too early and the end of the season may not be captured by surveillance. The current surveillance system does not always capture the beginning or end of the flu season. Because the start and end of the season vary from year to year, year-round influenza surveillance needs to be implemented. This change will ensure that the start and end of the flu season are captured and that a more accurate baseline can be calculated.

To better measure the burden of influenza on the community, influenza sentinel surveillance participation is encouraged. Sentinel surveillance allows for estimation of the severity of the flu season for the state and for each region. To obtain a more accurate and representative estimate of influenza activity in the state’s regions, there should be a sentinel site in each parish. Increasing the number of sentinel sites which participate in the influenza sentinel surveillance system in each parish and each region will provide a more accurate and detailed estimate of influenza activity for the state. If an unusual influenza season occurs, much like the early and severe 2003-2004 season, a more complete sentinel surveillance system will more quickly detect unusual variations in the influenza season.

The best way to prevent an influenza epidemic and to decrease the severity of the influenza season is to vaccinate the community. To have an effective vaccination campaign, enough people need to be vaccinated to invoke a herd immunity response. Vaccination campaigns are not beneficial if the influenza strains in the vaccine do not match the season’s circulating strains. Through surveillance and laboratory testing, circulating influenza strains are identified and the strains that need to be included in the following year’s vaccine can be determined. Surveillance can also help identify any changes in the virus and determine if a new influenza A subtype has emerged. Surveillance and laboratory testing can detect the development of antiviral resistance, which will determine the appropriate treatment or chemoprophylaxis that should be administered. The result of an effective vaccination campaign would be a decrease in the number of influenza cases, the number of doctor and emergency room visits, in school and work absenteeism and a decrease in the use of other health-care resources.
### LOUISIANA COMMUNICABLE DISEASE SURVEILLANCE

**JULY - AUGUST, 2005**

#### Table 1. Disease Incidence by Region and Time Period

<table>
<thead>
<tr>
<th>DISEASE</th>
<th>Vaccine-preventable</th>
<th>Sexually-transmitted</th>
<th>Enteric</th>
<th>Other</th>
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<td>TIME PERIOD</td>
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<td>Jan-Aug 2005</td>
<td>Jan-Aug 2004</td>
<td>%</td>
<td></td>
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<td>1 2 3 4 5 6 7 8 9</td>
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<td></td>
<td>Jan-Aug 2005</td>
<td>Jan-Aug 2004</td>
<td>%</td>
<td></td>
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<tr>
<td>Vaccine-preventable</td>
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<td></td>
<td></td>
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<td>Hepatitis B Cases</td>
<td>2 2 0 0 2 0 0 2 6 3</td>
<td>17 13 56 43</td>
<td>+30.2</td>
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<td>0.4 0.0 0.4 0.4 0.7</td>
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<td>0.7</td>
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<td>Pertussis</td>
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<td>6 3 33 13</td>
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<td>HIV/AIDS Cases</td>
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<td>Gonorrhea Cases</td>
<td>549 347 83 230 52 59</td>
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<tr>
<td>Rate</td>
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<td>43.1 33.0 159.2 163.2</td>
<td>53.1 57.5 21.6 42.0</td>
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<td>1.34 1.34 4.30 4.30</td>
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<td>Enteric</td>
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<tr>
<td>Campylobacter</td>
<td>2 3 1 2 1 3 4 1 5</td>
<td>22 34 88 106</td>
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<td>Salmonella Cases</td>
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<td>242 271 590 580</td>
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<tr>
<td>Rate</td>
<td>4.0 5.1 3.6 6.7 5.3</td>
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<td>13.4</td>
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<td>Shigella Cases</td>
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<td>40 36 106 218</td>
<td>0.5</td>
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<td>Rate</td>
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<td>Vibrio cholera</td>
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<td>0 0 0 0 0 0 0 0 0</td>
<td>0.0</td>
<td>0.0</td>
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<td>Vibrio, other</td>
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<td>5 9 20 30</td>
<td>20.0</td>
<td>-33.3</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. influenzae (other)</td>
<td>1 1 0 0 0 0 0 0 0 1</td>
<td>3 1 30 10</td>
<td>200.0</td>
<td>200.0</td>
</tr>
<tr>
<td>N. Meningitidis</td>
<td>0 0 1 0 0 0 0 0 0</td>
<td>1 5 29 31</td>
<td>6.5</td>
<td>6.5</td>
</tr>
</tbody>
</table>

1 = Cases Per 100,000

---

Due to delays in reporting of HIV/AIDS cases, the number of persons reported is a minimal estimate. Data should be considered provisional.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Total to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legionellosis</td>
<td>1</td>
</tr>
<tr>
<td>Lyme Disease</td>
<td>4</td>
</tr>
<tr>
<td>Malaria</td>
<td>2</td>
</tr>
<tr>
<td>Rabies, animal</td>
<td>14</td>
</tr>
<tr>
<td>Varicella</td>
<td>109</td>
</tr>
</tbody>
</table>

**Table 2. Diseases of Low Frequency**

<table>
<thead>
<tr>
<th>Disease</th>
<th>Total to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legionellosis</td>
<td>1</td>
</tr>
<tr>
<td>Lyme Disease</td>
<td>4</td>
</tr>
<tr>
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<tr>
<td>Rabies, animal</td>
<td>14</td>
</tr>
<tr>
<td>Varicella</td>
<td>109</td>
</tr>
</tbody>
</table>

**Table 3. Animal rabies**

<table>
<thead>
<tr>
<th>Parish</th>
<th>No. Cases</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lafayette</td>
<td>4</td>
<td>Skunk</td>
</tr>
<tr>
<td>Caddo</td>
<td>2</td>
<td>Bat</td>
</tr>
<tr>
<td>Calcasieu</td>
<td>1</td>
<td>Bat</td>
</tr>
<tr>
<td>Vernon</td>
<td>1</td>
<td>Bat</td>
</tr>
</tbody>
</table>
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.)

- Antrax
- Neisseria meningitidis (invasive disease)
- Smallpox
- Botulism
- Plague
- Staphylococcus Aureus,
- Brucellosis
- Poliomyelitis, paralytic
- Vancomycin Resistant
- Cholera
- Q Fever
- Typhus Fever
- Diphtheria
- Rabies (animal & man)
- Viral Hemorrhagic Fever
- Haemophilus influenzae (invasive disease)
- Rubella (German measles)
- Yellow Fever
- Measles (rubeola)
- Rubella (congenital syndrome)
- Mumps
- Tetanus

**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
- Hepatitis B (carriage)
- Salmonellosis
- Chancroid¹
- Hepatitis B (perinatal infection)
- Syphilis¹
- E. Coli 0157:H7
- Hepatitis E
- Tetracycline
- E. Coli Enterohemorrhagic (other)
- Herpes (meningonitilis)
- Tuberculosis²
- Encephalitis, Arthropod borne
- Legionellosis (acute disease)
- Hantavirus Pulmonary Syndrome
- Malaria
- Typhoid Fever
- Hantavirus Pulmonary Syndrome
- Hemolytic-Uremic Syndrome
- Mumps
- Hepatitis A (acute disease)
- Pertussis

**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)
- Human Immunodeficiency Virus (HIV) infection
- Streptococcal Toxic Shock Syndrome
- Blastoconjunctivitis
- Listeria
- Streptococcus Pneumoniae
- Campylobacteriosis
- Lyme Disease
- Streptococcus Pneumoniae
- Chlamydia infection⁴
- Lymphogranuloma Vulenreum⁵
- (invasive in childrenless than 5 years of age)
- Congenital Syphilis
- Syphilis (invasive infection in children)
- Coccidioidomycosis
- Rocky Mountain Spotted Fever (RMSF)
- Trichinosis
- Cryptosporidiosis
- Staphylococcus Aureus, Methicillin Resistance (MRSA)
- Vibrio Infections
- Cyclosporiasis
- Parvovirus B19
- Varicella (chickenpox)
- Dengue
- Enterovirus, Vancomycin Resistant
- Other: (other than cholaera)
- Enterovirus, Vancomycin Resistant
- Streptococcal Toxic Shock Syndrome
- West Nile Fever
- Encephalitis, Arthropod borne
- Streptococcal disease, Group A
- West Nile Infection (past or present)
- Encephalitis, Arthropod borne
- Streptococcal disease, Group B (invasive disease)
- Gonorrhea¹
- Streptococcal Toxic Shock Syndrome
- Hepatitis B (acute)
- Hepatitis B (acute and infection)
- Other Reportable Conditions
- HIV infection
- Streptococcal Toxic Shock Syndrome
- Acquired Immune Deficiency Syndrome
- Hepatitis C (acute and infection)
- Syphilis
- Chancroid
- Herpes (meningonitilis)
- Congenital Syphilis
- Hepatitis B (acute)
- Other Reportable Conditions
- Aseptic meningitis
- Hepatitis B (carriage)
- Salmonellosis
- Chancroid¹
- Hepatitis B (perinatal infection)
- Syphilis¹
- E. Coli 0157:H7
- Hepatitis E
- Tetracycline
- E. Coli Enterohemorrhagic (other)
- Herpes (meningonitilis)
- Tuberculosis²
- Encephalitis, Arthropod borne
- Legionellosis (acute disease)
- Hantavirus Pulmonary Syndrome
- Malaria
- Typhoid Fever
- Hantavirus Pulmonary Syndrome
- Hemolytic-Uremic Syndrome
- Mumps
- Hepatitis A (acute disease)
- Pertussis

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