Louisiana Morbidity Report

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July - August 2013 **Volume 24, Number 4**

Norovirus - Louisiana, 2013

Julie Hand, M.S.P.H.

In the spring of 2013, there were two confirmed outbreaks of norovirus among people who attended catered parties in the same region in Louisiana. Cake, prepared for both parties by the same bakery, was the only food item with a significant association of becoming ill. Contamination by the bakery's food handler shedding norovirus was the likely source.

The first outbreak was among 15 persons who attended a party. Interviews were conducted with 33 of the attendees. With the information obtained from questionnaires, a case control study was done.

Cases were defined as those who attended the party and developed diarrhea or vomiting within two days, and have had contact with a primary case. Controls were defined as those who attended the party and did not experience vomiting or diarrhea.

Symptom duration was available for 13 cases; the average duration was 52 hours with a range of 10 to 96 hours. At the time of the investigation, no cases reported consulting a physician or visiting an emergency department (ER) for their symptoms.

Six stool samples were collected and six tested positive for Norovirus G2; a stool sample was also collected from a food handler at the bakery who was ill the week prior to the party with gastroenteritis and was positive for Norovirus G2.

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Back-to-School Vaccination

Frank Welch, M.D.; Ruben Tapia, M.P.H.

Immunizations have been called the most important public health intervention in history, after safe drinking water, saving millions of lives over the years and preventing hundreds of millions of cases of disease. Getting children immunized can protect them from some very serious diseases, and can also protect friends, schoolmates and others from those same diseases. In some cases children are not able to respond to certain vaccines, or they can't take certain vaccines for medical reasons; for these children, the immunity of people around them is their only protection.

Vaccines protect your grandchildren, their grandchildren, and future generations from diseases which, at one time or another in the past, have been a serious threat to children in the United States. If vaccinations were stopped, diseases that are currently under control would eventually come back to cause epidemics; this has happened in several other countries.

Today, children in the U.S. routinely get vaccines that protect them from the following 14 diseases, most of which are now at their lowest levels in history, thanks to years of immunization:

- Diphtheria
- Hepatitis A
- Hepatitis B
- Hib disease
- Influenza
- Measles
- Mumps
- Pertussis (Whooping Cough)
- Pneumococcal Disease
- Polio
- Rotavirus
- Rubella (German Measles)
- Tetanus (Lockjaw)
- Varicella (Chicken Pox)

Vaccines are very safe, but, like any medicine, they are not perfect and can cause reactions. Usually these reactions are mild, like a sore arm or slight fever; serious reactions are very uncommon. A healthcare provider can discuss the risks before a child receives each vaccine. and will give out a form called a Vaccine Information Statement (VIS), describing the vaccine's benefits and risks. The important thing to remember is that getting vaccines is much safer than getting the diseases they prevent.

Vaccines - A Remarkable Track Record

Vaccines help rid the world of diseases that have been crippling

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Hantavirus Infection Louisiana, 2013

A recent (2013) case of Hantavirus Pulmonary Syndrome (HPS) is a reminder that this disease does occur in Louisiana, although it is rare.

Case History

A 51-year-old school teacher started having high fever and pulmonary symptoms. He was quickly hospitalized, one day after onset. His chest x-ray showed bilateral interstitial pulmonary infiltrates and low oxygen saturation, all suggestive of Acute Respiratory Distress Syndrome (ARDS). At the beginning of illness, HPS is indistinguishable clinically from numerous other viral infections. Often the only guide to the etiology of the patient's illness is the blood picture.

This patient had all the hematologic characteristics of HPS - particularly progressive thrombocytopenia (low platelet count). Thombocytopenia is one of the most consistent laboratory findings in HPS, occurring in virtually all patients and frequently present early in the infection; it has been shown to be highly discriminatory between patients with HPS and those with other febrile illnesses.

Other important hematologic abnormalities include:

- a leukocytosis (high white blood cell count) with a left-shift and immunoblasts ("left-shift" refers to the presence of increased proportions of younger, less well differentiated neutrophils)
- neutrophil-precursor cells in the blood reflecting a premature release of myeloid cells from the bone marrow)
- hemo-concentration (high hematocrit).

This tetrad (thrombocytopenia, left shift, circulating immunoblasts, and hemoconcentration) is seldom seen in other viral infections.

This very typical clinical presentation (and a history of cleaning a room full of rat feces) were strongly indicative of HPS for the patient. Serology was requested and results confirmed the diagnosis of HPS. The case was confirmed by positive serologic results for IgM and IgG by an Immuno-Blot test utilizing an envelope antigen. The case was further confirmed by the Centers for Disease Control and Prevention (CDC) by genetic sequencing data as having been infected by the Bayou Virus.

The treatment was supportive and the patient recovered.

Epidemiology

HPS can be caused by one of more than 25 antigenically distinguished viral species, each associated primarily with a single rodent species. One of the most well-known of these is the Sin Nombre virus (SNV). Bayou virus is another hantavirus, first described in Louisiana in 1993. The rodent hosts are usually not associated with urban environments, although several may enter human dwellings in rural or suburban areas.

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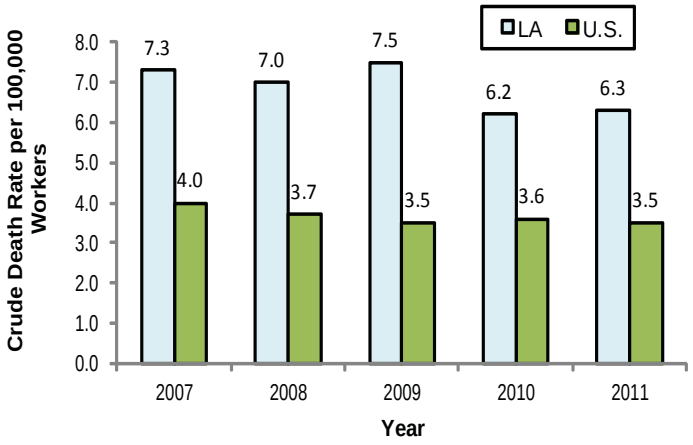
Fatalities In The Construction Industry - Louisiana, 2007-2011

Jocelyn Lewis, Ph.D.; Michelle Lackovic, M.P.H.; Shannon Soileau, M.S.

The Louisiana Department of Health & Hospital's (DHH) Occupational Health & Injury Surveillance Program focuses on identifying workers at high risk for occupational injuries and illnesses, and providing data to reduce occupational injuries and diseases through targeted preventive measures. An important data source in this effort is the Census of Fatal Occupational Injuries (CFOI), a comprehensive national surveillance system for work-related fatalities in the United States

CFOI data show that Louisiana's fatal occupational injury rate remains consistently greater than the U.S. rate, as well as more than many other states (Figure 1).

Figure 1: Rates of Fatal Occupational Injuries Per 100,000 Workers Louisiana and United States, 2007-2011



The death rates per 100,000 workers comparison between Louisiana and the U.S. may be due to several reasons, one being the lack of adjustment by industry. Fatal injuries vary by industry;

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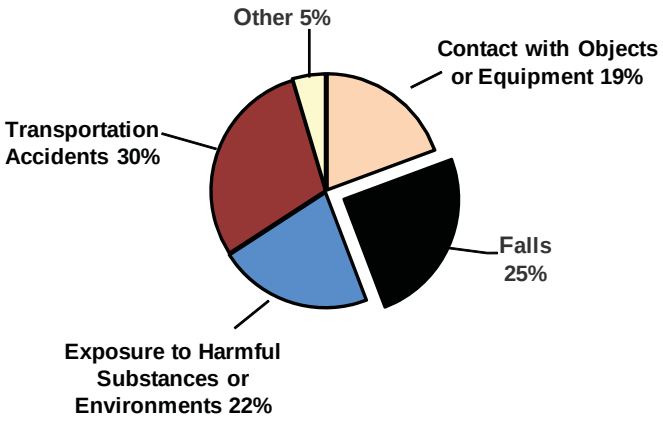
high-risk industries include agriculture, mining (including oil and gas), transportation, and construction.

Between 2007 and 2011, there was an average of 125 work-related deaths per year in Louisiana. About one-fifth of these deaths occurred in the construction industry. CFOI classifies each fatal event or exposure into one of six causes of death categories:

- transportation accidents
- contact with objects or equipment
- exposure to harmful substances or environments
- falls
- assaults/violent acts
- fires/explosions.

Approximately one-quarter of the fatalities in the construction industry were due to falls (Figure 2). Most fatal falls are a fall to a lower level such as a fall from a roof, scaffold or ladder.

Figure 2: Fatal Occupational Injuries by Cause of Death - Construction Industry – Louisiana, 2007-2011.



- Other includes two categories: Assaults/Violent Acts and Fires / Explosions.

- Transportation accidents exclude commuting to and from work.

- Exposure to harmful substances or environments includes contact with chemicals, electrocution, extreme temperatures, oxygen-depleted spaces and drowning.

The Occupational Health and Safety Administration (OSHA) investigates all work-related fatalities and disasters. Federal law requires that within eight hours after the work-related death of any employee, or the in-patient hospitalization of three or more employees, employers must orally report the fatality/multiple hospitalization by telephone, or in person to the nearest OSHA Office or State.

Descriptions of eight fall fatalities occurring in Louisiana were selected from OSHA's fatality database.

• A worker picking up trash on a building roof died after falling more than 20 feet and hitting a trash dumpster.

• A worker was on a platform that collapsed, falling 25 feet.

• A worker, during the repair/construction of building gutters, fell through a mechanical lift.

• A construction worker died after falling 12 feet from a ladder.

• A worker installing shingles on a roof, died when he fell nearly 20 feet to the ground.

• A sheet metal worker died from head injuries after falling from a ladder.

• A worker was climbing a ladder on a scaffold to start dismantling it when he fell from the ladder approximately 42 feet to the ground.

• A worker was repairing a roof installation and fell 14 feet to the ground.

Falls can be prevented and lives can be saved through three simple steps: plan, provide and train. The National Institute for Occupational Safety and Health (NIOSH) & OSHA are part of a nationwide outreach campaign to raise awareness among workers and employers about the hazards of falls.

Please Visit OSHA's website at *osha.gov/stopfalls* for posters, training materials and more information about how to be a partner in the campaign. For more information on the Louisiana DHH, Office of Public Health, Section of Environmental Epidemiology & Toxicology/Occupational Health & Injury Surveillance Program, visit *seet.dhh.la.gov*.

Louisiana Fact

The Cocktail's Link to Medicine

Peychaud's Bitters was originally created around 1830 by Antoine Amédée Peychaud, a French planter and pharmacist, who emigrated from the French colony of Saint-Domingue, now Haiti, in 1793 to New Orleans. These bitters were thought to have healing properties. In his apothecary shop at 437 Royal Street, he would add a few drops of brandy to the bitters in a double-ended eggcup called a coquetier (kah-kuh-TYAY), which was said to have derived over the years to the word 'cocktail'. Peychaud's Bitters is an important component of the Sazerac cocktail, said to be America's first 'branded cocktail' invented pre-1850 in New Orleans.

One of Peychaud's main ingrediants was gentian known from 180 B.C. near the European area now known as Albania. The botanical name of gentian is derived from Gentius, an ancient botanist and King of Illyria (180-167 B.C.), who discovered its medicinal value. Gentian was commonly employed as an antidote to poison, for stomach problems and to expel worms and kill plasmodia (organisms that cause malaria), and was thought to be more effective than quinine in some parts of the world. Gentian root is classified as the standard bitter, and the rest are measured against it.

Photo: Courtesy of the Sazerac Company, Inc.

Multi-State Salmonella Outbreak Associated With Baby Chicks Includes Louisiana

KellyAnn Hanzlik, B.S.N., M.P.H. Candidate

Salmonellosis is an infection with bacteria called S*almonella*, the leading cause of foodborne illness in the United States, according to the U.S. Dept. of Agriculture. The organism lives in the intestinal tracts of humans and animals and is present in the natural environment in water, soil, and plants through animal or human excretion. If conditions are favorable, the bacteria can survive several weeks in water and several years in soil. The organism is usually acquired by ingestion of contaminated water or food; poultry products are major sources in many developed countries.

Salmonella are Gram-negative facultative rod-shaped bacteria. There are many different types of *Salmonella* with only a few types leading to illness. *Salmonella* is a genus of bacteria from the family *Enterobacteriaceae*. These bacteria are classified into one species, and then further classified into seven subgroups based on DNA similarity and host range. There are over 2,000 *Salmonella* serotypes, most of which are named for the cities where they were defined. *Salmonella* serotypes Typhimurium and Enteritidis are the most common in the U.S. and an important cause of gastroenteritis in humans worldwide.

Although thousands of cases of *Salmonella* are reported each year in the U.S., the disease is thought to be significantly underreported. Many milder cases often may not require medical care, and thus, are not officially diagnosed. Signs and symptoms of salmonellosis may include: diarrhea, fever, abdominal cramps, headache, loss of appetite, nausea and vomiting. Symptoms can occur within 12 hours of exposure and usually last from four to seven days. Symptoms can be severe in infants, the elderly, and the immunocompromised. Diagnosis is determined from detection of *Salmonella* bacteria, usually via stool culture, but urine, blood or tissue may also be used.

Transmisson results from contact with the bacteria. *Salmonella* can be found in food products, such as raw poultry, eggs, beef, and unwashed fruit or vegetables. Food prepared on surfaces that have had contact with raw poultry or meat can be contaminated and a source as well. One can also contract the bacteria from handling pets, particularly reptiles like snakes, turtles, and lizards, as well as from exposure to live poultry, such as baby chicks or ducklings.

According to the Centers for Disease Control and Prevention, since the 1990s, there have been 45 *Salmonella* outbreaks linked to live poultry. Recently an outbreak of several *Salmonella* serotypes occurred in multiple states, including Louisiana in 2013. It was determined that the majority of the cases involved had recent prior exposures to live baby chicks, and displayed a distinctly similar pulsed field gel electrophoresis (PFGE) pattern upon analysis. The outbreak involved 14 cases of *Salmonella* in the state of Louisiana. Onset ranged from early March to late May. Ages of the cases ranged from less than one year to 67 years, with an average age of 18 years. Five of the cases were female; nine were male. Cases were found in nearly all regions of the state (Regions 1, 2, 3, 6, 7, 8 and 9). All cases interviewed reported having recent contact with live poultry prior to illness.

A number of measures can help prevent a *Salmonella* infection from animal contact. Wash hands thoroughly with soap and water immediately after handling reptiles and pets, or having contact with pet feces. If soap and water are not readily available, it is recommended to use hand sanitizer until being able to wash hands thoroughly with soap and water. Do not keep live poultry inside homes, bathrooms, or especially in areas where food or drink is prepared, served, or stored, such as kitchens or outdoor patios. Do not let children younger than 5-years-of-age, older adults, or people with weak immune systems handle or touch chicks, ducklings, or other live poultry. These groups are potentially susceptible to more severe illness from *Salmonella* infection. Do not snuggle or kiss birds, touch your mouth, or eat or drink around live poultry. Clean any equipment or materials associated with raising or caring for live poultry outside the house, such as cages or feed or water containers.

The Sanitary Code of Louisiana lists *Salmonella,* or salmonellosis, as a class B disease with reporting required within one business day of diagnosis by hospitals and labs. *Salmonella* bacterial isolates should be sent to the state laboratory for confirmation, serotyping, and PFGE.

For more information, please contact Erin Delaune at (504) 568-8316 or email to *erin.delaune@la.gov*.

Infectious Disease Epidemiology Training 2013

St. Francisville - October 9, 2013
Natchitoches - November 13, 2013

These trainings are free and open to the public, but registration is required to ensure seating/materials. Nursing and Sanitarian credit hours are available. Agenda and registration form at webpage *dhh.louisiana.gov/index.cfm/page/1297*.

(Hantavirus ...continued from page 2)

The primary risk factor for hantavirus exposure is rodent infestations in and around the home. Occupational exposures have been recognized, but are rare. Humans acquire infection primarily through inhalation of infectious aerosolized rodent saliva or excreta. Person-to-person transmission has never been associated with HPS cases in the United States. Nevertheless, standard precautions are recommended due to evidence of person-to-person transmission of a related virus in South America.

HPS was first identified in 1993, but evidence exists of a confirmed SNV infection in 1959, with signs compatible with HPS.

For more information, please contact Dr. Gary Balsamo at (504)568-8315 or email to *gary.balsamo@la.gov*.

Legionnaires' Disease Louisiana, 2012-2013

Julie Hand, M.S.P.H.

In late 2012, early 2013 there was a confirmed outbreak of Legionnaires' disease among four people exposed to aerosolized water from a hotel's hot tub. Louisiana has about 10 to 15 cases of Legionnaires' reported each year. Within one week at the end of December 2012, three confirmed cases were reported in one parish. An investigation was begun to determine if this was an outbreak due to a common source versus sporadic cases. A fourth case was identified in January 2013 while the outbreak investigation was ongoing.

Of the four cases: three survived and one died; one was male and three were female; the average age was 64 years (from a range of 55 to 74 years). All cases presented with cough, fever and pneumonia confirmed by chest x-ray. All cases were hospitalized; average length of admission was 9.5 days with a range of three to 15 days. The average incubation period of the four cases was 11 days with a range of seven to 14 days. Two of the cases had no underlying health conditions that placed them at increased risk for Legionnaires' other than age. One case was a current smoker. One case had chronic kidney disease, heart disease and liver disease.

In early January, an epidemiologist from the Department of Health and Hospitals' (DHH) Infectious Disease Epidemiology Section (IDEpi) followed up the family of the first three cases of Legionnaires' to complete the Centers for Disease Control and Prevention (CDC) Legionellosis hypothesis generating questionnaire. All three cases had one commonality: they had been at the same hotel in the 10 days prior to illness onset. Two of the cases had been at the hotel for holiday luncheons; the third case was staying at the hotel while visiting family. In late January when being interviewed, the fourth case reported eating at the hotel restaurant.

The hotel had multiple buildings that contained guest rooms, ballrooms and a restaurant. There was a salt water pool that was split between outdoor and indoor, and an indoor hot tub. The lobby was a large atrium that included access to the indoor pool and hot tub, guest rooms, ballrooms and the restaurant. In accordance with CDC guidence, information on all hot water heaters was gathered; also chlorine and pH values in guest room buildings, and the pool and hot tub were obtained.

The first set of samples collected from the hot tub was positive for *Legionella pneumophila* serogroup 1. Based on the concentration of viable bacteria, the hot tub presented a very high risk for causing an outbreak of Legionnaires' disease and recommended immediate disinfection of site. Samples from the swimming pool were negative for *L. pneumophila* serogroup 1 and the overall disinfection of the pool was deemed good.

Rather than begin the remediation process, the owners of the hotel chose to remove the hot tub entirely.

Recommedations and Laboratory Criteria:

For whirlpool spas, halogen levels should be maintained at 4 mg/L to 10 mg/L; these levels should be monitored frequently. The pH should be maintained at 7.2 to7.8 to ensure effective disinfection by halogens. The system should be drained and cleaned frequently (daily if under heavy use), and the filters replaced regularly.

Legionellosis is a condition reportable within one business day to the DHH IDEpi Section.

The laboratory criteria for diagnosis is:

- Isolation of *Legionella* from respiratory secretions, lung tis sue, pleural fluid, or other normally sterile fluids, or
- Demonstration of a four-fold or greater rise in the reciprocal immunofluorescence antibody (IFA) titer to greater than or equal to 128 against *L. pneumophila* serogroup 1 between paired acute- and convalescent-phase serum specimens, or
- Detection of *L. pneumophila* serogroup 1 in respiratory se cretions, lung tissue, or pleural fluid by direct fluorescent antibody testing, or
- Demonstration of *L. pneumophila* serogroup 1 antigens in urine by radioimmunoassay or enzyme-linked immunosorbent assay.

For more information, please contact Julie Hand at (504) 568-8298 or email to julie.hand@la.gov.

Announcements

Updates: Infectious Disease Epidemiology (IDEpi) Webpages
www.infectiousdisease.dhh.louisiana.gov

Annual Reports: Botulism; Chlamydia; Cryptococcus; Cryptosporidiosis; Gonorrhea; Hantavirus Pulmonary Syndrome; *Haemophilus influenzae*; HIV; Tetanus
Antibiotic: Trends in Antibiotic Resistance-2011
Epidemiology Manual: Air Travel Exposures; Amebic Encephalitis and Keratitis; Boil Water Advisories and Infection Control; Botulism; COVIS 2013 Form (Cholera); Parasitic Disease Diagnosis for Healthcare Providers (CDC); Plague Form (CDC); Q Fever Form (CDC); TB Summary; Tularemia Form (CDC); *Vibrio Vulnificus* Public Information
HAI: Conferring Rights Guide; Summer 2013 Newsletter
Infection Control Manual: Boil Water Advisories and Infection Control
Influenza: Web Links for H7N9 and MERS-CoV; Weekly Report
School Resources: Communicable Diseases in School Settings
Veterinary: Protocol for Animal Control and Law Enforcement Agencies Addressing Animal Bites and Potential Rabies Exposures; Protocol for Shipping Specimens to the Office of Public Health Laboratory for Rabies Testing
West Nile Virus: Weekly Report

(Back-to-School ...continued from page 1)

and killing children for centuries. Immunization allowed for the eradication of smallpox. Today polio is nearly gone; in the future measles and other diseases will follow.

Diphtheria used to be one of the most dreaded of childhood diseases, killing over 10,000 people a year in the United States. After the start of vaccinations for children in the 1930s and 1940s, the disease began to disappear. Today most doctors will never see a single case of diphtheria, much less have a patient die from it.

Parents in the 1950s were terrified as polio paralyzed children by the thousands. Since the Salk and Sabin vaccines were used to prevent polio, there has not been a case of wild virus polio in the U.S. since 1979.

In 1962, the year before the measles vaccine was introduced, almost 500,000 cases of measles were reported in the U.S., with many more cases going unreported. Ten years later, there were about 32,000 cases and 10 years after that, fewer than 2,000. As of the end of 2005, there have been only 405 cases in this country; however, 220 of these occurred in 2011, suggesting a possible resurgence.

Smallpox was one of the most devastating diseases the world has ever known. It killed millions of people every year. In 1967 the World Health Organization undertook an intensive, worldwide vaccination campaign. Twelve years later the disease had been wiped out, and there hasn't been a single case since. Smallpox was the first disease ever eradicated from the Earth thanks to vaccination.

What is the Law in Louisiana?

Louisiana law requires children aged four years or older who are entering kindergarten, pre-kindergarten or Head Start programs this year have proof they have received the following vaccinations:

- a booster dose of Poliovirus vaccine (IPV)
- two doses of Measles, Mumps, Rubella vaccine (MMR)
- three doses of Hepatitis vaccine (HBV)
- two doses of Varicella (chicken pox) vaccine (Var)
- a booster dose of Diphtheria Tetanus Acellular Pertussis vaccine (DtaP).

Children in Daycare need to be up-to-date with their age-appropriate immunizations.

Children who are 11-years-old or older and are entering the sixth grade this year must have proof they have received all of the age-appropriate immunizations listed above, and at this age, children also need proof of receiving the meningococcal (meningitis) vaccine and the Tetanus Diphtheria Acellular Pertussis vaccine (Tdap).

Where Can Children Get Vaccinated / Obtain Shot Records?

Parents should contact their child's doctor to have their child vaccinated. Children who are eligible to receive vaccinations at Parish Health Units are those that have Medicaid, those without insurance, American Indian/Alaskan natives, or children who are insured, but their insurance company does not cover specific vaccinations. Those children who have insurance should contact their private provider for vaccination services.

Parents can obtain copies of their child's immunization record from their child's physician, or from a parish health unit or a Federally Qualified Health Center. If parents are not able to submit proof of updated immunizations, their children will need to be re-vaccinated to get an updated immunization record.

For more information, please contact Ruben Tapia at (504) 838-5300 or email to *ruben.tapia@la.gov*.

(Norovirus ... continued from page 1)

The second outbreak was among 40 persons who attended a party with a different caterer in a different location than the first party. The caterer provided a list of food served at the party; six items were prepared and served at multiple functions and five items were served only at the party of the second outbreak. Interviews were conducted with 71 party attendees. A case control study was done.

Cases were defined the same as in the investigation for the first party. Seven stool samples were collected and six tested positive for Norovirus G2. The implicated food item was a cake from a local bakery. The cake was from the same bakery as in the first outbreak.

Symptom duration was available for 34 cases; the average duration was 36 hours with a range of six to 96 hours. All five secondary cases had household contacts that were cases. At the time of the investigation, six cases reported consulting a physician or visiting an ER for their symptoms.

Stool samples from both outbreaks were sent for genetic sequencing and the results from both were Norovirus GII.2. Due to insufficient quantity of virus, sequencing could not be performed on the sample obtained from the bakery's food handler. The numbers from both outbreaks were combined (Tables 1 and 2).

Table 1: Cake Case-Control Numbers for Party 1 and Party 2 Attendees Louisiana, 2013

	Case	Control	Total
Ate Cake	50	19	69
Did Not Eat Cake	4	22	26
Total	54	41	95

Table 2: Odds Ratio, P-Value and Attack Rate for Party 1 and Party 2 Attendees - Louisiana, 2013

Food Item	Odds Ratio (95% CI)	p-value	Attack Rate
Cake	14.5 (4.41 – 47.5)	<0.001	73%

Recommendations were made to the bakery regarding exclusion of food handlers when ill. They were given a norovirus summary sheet with the recommendations that:

- For three days after resolution of illness, ill food handlers should be excluded from work or work in an area where they are not in contact with food,
- For three weeks after resolution of illness, food handlers should wash their hands and wear gloves whenever they handle food ready to be served.

For more information, please contact Julie Hand at (504) 568-8298 or email to *julie.hand@la.gov*.

Table: Communicable Disease Surveillance, Incidence by Region and Time Period, May-June, 2013

DISEASE		HEALTH REGION 1	2	3	4	5	6	7	8	9	TIME PERIOD May-Jun 2013	May-Jun 2012	Jan-Dec Cum 2013	Jan-Dec Cum 2012	Jan-Dec % Chg*
Vaccine-preventable															
Hepatitis B	Cases	2	3	0	0	0	1	0	0	1	7	3	28	26	NA*
	Rate[1]	0.2	0.5	0	0	0	0.3	0	0	0.3	0.2	0.1	0.6	0.6	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	1	0	NA*
Rubella		0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Pertussis		7	11	8	9	1	1	4	5	2	48	5	78	19	310.5
Sexually-transmitted															
HIV/AIDS	Cases[2]	59	40	8	16	11	18	17	7	7	84	186	618	572	8.0
	Rate[1]	5.9	6.9	2.1	3.0	4.0	6.0	3.4	2.0	1.6	4.2	4.3	14.1	13.1	NA*
Chlamydia	Cases[1,3]	897	448	210	446	215	234	623	431	254	3,758	6,791	11,709	12,110	-3.3
	Rate[1]	107.4	67.5	51.6	76.4	73.5	75.5	114.5	121.1	46.9	82.9	149.8	258.3	267.1	NA*
Gonorrhea	Cases[1,3]	412	118	52	164	43	58	181	141	52	1,221	2,131	3,480	3,981	-12.6
	Rate[1]	49.3	17.8	12.8	28.1	14.7	18.7	33.3	39.6	9.6	26.9	47.0	76.8	87.8	NA*
Syphilis (P&S)	Cases[1,3]	9	7	4	7	2	2	15	2	1	49	55	159	148	7.4
	Rate[1]	1.1	1.1	1.0	1.2	0.7	0.6	2.8	0.6	0.2	1.1	1.2	3.5	3.3	NA*
Enteric															
Campylobacter	Cases	4	6	1	2	4	9	3	1	14	44	15	99	85	16.5
Hepatitis A	Cases	0	0	0	0	0	0	0	0	0	0	1	5	1	NA*
	Rate[1]	0	0	0	0	0	0	0	0	0	0	0	0.1	0	NA*
Salmonella	Cases	18	41	20	27	17	15	23	17	40	218	142	445	555	-19.8
	Rate[1]	1.7	7.2	5.3	5.2	6.3	4.9	4.5	4.8	10.4	5.1	3.3	10.3	12.9	NA*
Shigella	Cases	5	22	2	17	2	0	2	1	14	65	15	137	102	34.3
	Rate[1]	0.5	3.9	0.5	3.3	0.7	0	0.4	0.3	3.6	1.5	0.3	3.2	2.4	NA*
Vibrio cholera	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Vibrio, other	Cases	3	2	2	1	2	0	0	0	1	11	7	20	30	-33.3
Other															
H. influenzae (other)		0	0	0	2	2	1	2	2	1	10	3	30	30	NA*
N. Meningitidis		0	0	0	0	0	0	0	0	0	0	o	6	2	NA*

[1] = Cases Per 100,000.

[2] = 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.

[3] = Prelminary data.

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

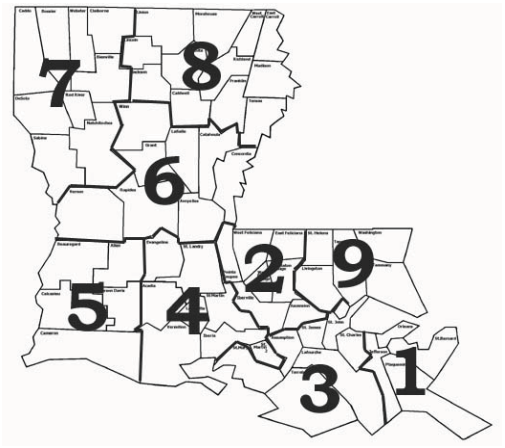
Table 2. Diseases of Low Frequency, January-December, 2013

Disease	Total to Date
Legionellosis	13
Lyme Disease	0
Malaria	3
Rabies, animal	4
Varicella	43

Table 3. Animal Rabies, May-June, 2013

Parish	No. Cases	Species
DeSoto	2	Skunk

Figure: Department of Health and Hospitals Regional Map



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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.

- Acute Flaccid Paralysis
- Anthrax
- Avian or novel strain Influenza A (iniital detection)
- Botulism
- Brucellosis
- Cholera
- *Clostridium perfringens* (foodborne infection)
- Diphtheria
- Fish/Shellfish Poisoning (Domoic Acid, neurotoxic, Cigueatera, paralyitc, Scombroid)
- Foodborne Infection
- *Haemophilus influenzae* (invasive disease)
- Influenza-associated Mortality
- Measles (Rubeola imported or indigenous)
- N*eisseria meningitidis* (invasive infection)
- Outbreaks of Any Infectious Disease
- Pertussis
- Plague (*Yersinia Pestis*)
- Poliomyelitis (paralytic & non-paralytic)
- Q Fever (*Coxiella burnetii)*
- Rabies (animal and human)
- Ricin Poisoning
- Rubella (congenital syndrome)
- Rubella (German Measles)
- Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV)
- Smallpox
- *Staphylococcus aureus*, Vancomycin Intermediate or Resistant (VISA/VRSA)
- Staphylococcal Enterotoxin B (SEB) Pulmonary Poisoning
- Tularemia (*Francisella tularensis*)
- Viral Hemorrhagic Fever
- Yellow Fever

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

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

- Amoeba (free living infection: *Acanthamoeba, Naegleria, Balamuthia,* Others)
- Anaplasmosis
- Arthropod-Borne Neuroinvasive Disease (West Nile, St, Louis, California, Eastern Equine, Western Equine, Others)
- Aseptic Meningitis
- Babesiosis
- Chagas Disease
- Chancroid
- Dengue Fever
- *Escherichia coli*, Shig-toxin producing (STEC), including *E. coli* 0157:H7
- Granuloma inguinale
- Hantavirus (infection or Pulmonary Syndrome)
- Hemolytic-Uremic Syndrome
- Hepatitis A (acute disease)
- Hepatitis B (acute illness & carriage in pregnancy)
- Hepatitis B (perinatal infection)
- Hepatitis E
- Herpes (neonatal)
- Human Immunodeficiency Virus [(HIV), infection in pregnancy][2]
- Human Immunodeficiency Virus [(HIV), perinatal exposure][2]
- Legionellosis (acute disease)
- Malaria
- Mumps
- Salmonellosis
- Shigellosis
- Syphilis[1]
- Tetanus
- Tuberculosis[3] (*M. tuberculosis, M. bovis, M. africanum*)
- 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)[3]
- Anaplasma Phagocytophilum
- Blastomycosis
- Campylobacteriosis
- Chlamydial infection[1]
- Coccidioidomycosis
- Cryptococcosis
- Cryptosporidiosis
- Cyclosporiasis
- Ehrlichiosis (human granulocytic & monocytic, *Ehrilichia chaffeenisis*
- Enterococcus, Vancomycin Resistant [(VRE), invasive disease]
- Giardia
- Glanders
- Gonorrhea[1] (genital, oral, ophthalmis, pelvic inflammatory disease, rectal)
- Hansen Disease (leprosy)
- Hepatitis B (carriage, other than in pregnancy)
- Hepatitis C (acute illness)
- Hepatitis C (past or present infection)
- Human Immunodeficiency Virus (HIV (infection other than as in Class B)[2]
- Human T Lymphocyte Virus (HTLV I & II infection)
- Leptospiriosis
- Listeria
- Lyme Disease
- Lymphogranuloma venereum 1
- Meliodosis (*Burkholderia pseudomallei)*
- Meningitis, Eosinophilic
- Nipah Virus infection
- Psittacosis
- Spotted Fevers {Rickettsia species including Rocky Mountain Spotted Fever (RMSF)]
- *Staphylococcus aureus*,(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*, invasive disease
- Transmissible Spongiform Encephalopathies (Creutzfeldt-Jacob Disease & variants)
- Trichinosis
- Varicella (chickenpox)
- Vibrio Infections (other than cholera)
- Yersiniosis

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

- Cancer
- Carbon Monoxide Exposure and/or Poisoning[5]
- Complications of Abortion
- Congenital Hypothyroidism[4]
- Galactosemia[4]
- Heavy Metal (Arsenic, Cadmium, Mercury) Exposure and/or Poisoning (All ages)[5]
- Hemophilia[4]
- Lead Exposure and/or Poisoning (children)[4] (adults)[5]
- 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 mail or facsimile on Confidential Disease Report forms (2430), fascimile (504) 568-8290, telephone (504) 568-8313, or 1-800-256-2748 for forms and instructions.

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

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

[3]Report on CDC72.5 (f.5.2431) card

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

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

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