Louisiana Morbidity Report

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November - December, 2015 Volume 26, Number 6

Revisions to Sanitary Code

Andrew Smith, MPH

State of Louisiana Public Health - Sanitary Code Part II - The Control of Diseases - Chapter 1. Disease Reporting Requirements Section 105. Reportable Diseases and Conditions

Effective December 20, 2015, the Sanitary Code concerning infectious disease reporting requirements has been revised. One major change was a general reorganization of the paragraphs to clarify reporting requirements.

Five new reportable conditions were also added to improve disease surveillance in Louisiana: histoplasmosis (Class C), non-gonococcal urethritis (Class C), opthalmia neonatorum (Class C), pneumoconiosis (Class D), and radiation exposure over normal limits (Class D). Several other conditions were revised to reflect current concerns in disease surveillance, including viral hemorrhagic fevers and arthropod-borne viral infections.

Additionally, a new reporting category was added in Section 107 Subsection B detailing pathogens required to be reported by laboratory facilities upon detection. These are in addition to and distinct from the other reportable conditions in Section 105, and the responsibility to report these conditions is solely placed upon laboratory facilities.

The full and current (beginning December 20, 2015) list of reportable conditions by reporting class for Sections 105 and 107 can be found on page 8 of this issue.

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An Ocular Worm: South Louisiana, 2015

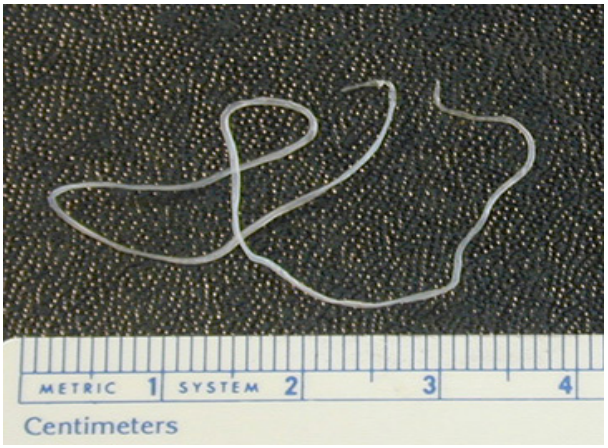
Sarah Shrum, MPH Candidate; Gary Balsamo DVM, MPH&TM; Cassan Pulaski, DVM, MPH; Keith Kellum, MD

In the early summer of 2015, a 70-year-old woman presented to her ophthalmologist with complaints of bloodshot eyes, mucoid discharge, photosensitivity, swelling, burning sensations, and ocular pain at night, which she had been experiencing for several days prior. After examination, the ophthalmologist removed an approximately 4-inch, threadlike worm from the subconjunctival space in her eye without complications. The rest of the area was searched and no other worms found.

The patient had no history of foreign travel. She recently had had cataract surgery (2 months prior) with corneal implants performed by the same doctor. A month after the procedure, the patient was doing well and had no complications. She reported no swimming or water contact with her eyes. She does own both dogs and cats.

The worm was sent to the Louisiana State University School of Veterinary Medicine where it was confirmed as *Dirofilaria tenuis* (Figure).

Figure: *Dirofilaria* sp. (suspect *D. tenuis*) - Photo - Centers for Disease Control and Prevention



D. tenuis is a subspecies of the Dirofilaria roundworm, which also includes *D. immitis* (commonly known as "heartworm") and *D. repens* (responsible for most human *Dirofilaria* infection in Europe, Asia, and Africa).

Although generally uncommon in humans, it is possible to be

(continued on page 4)

Chagas Update

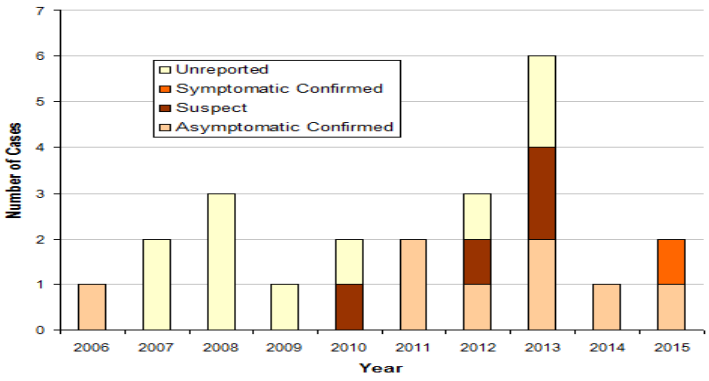
Christine Scott-Waldron, MSPH; Julius Tonzel, MPH

Chagas disease is caused by the parasite *Trypanosoma cruzi* and transmitted to animals and humans by insect vectors known as triatomine bugs. It is endemic in Mexico, Central America and South America, principally rural areas, where an estimated 8 to 11 million persons are infected. Chagas disease is not directly transmissible from person-to-person, with the exception of congenital transmission. Although rare, vector-borne cases of Chagas disease have been noted in the southern United States. The first case of Chagas in the United States was reported in 1955.

Most *T. cruzi*-infected persons identified in the US are imported infections (acquired outside of the US) seen in Latin American immigrants. Serologic studies indicate that many autochthonous (indigenous) cases have been undiagnosed for years. National screening of the blood supply began in early in 2007 led to increased identification of asymptomatic, chronic indeterminate cases. Recently, the disease has been receiving a lot of media attention, and the Department of Health and Hospitals' Infectious Disease Epidemiology Section (IDEpi) has been receiving notification of a few positive *T. cruzi* antibody screening tests among blood donors.

Chagas disease has likely been transmitted in Louisiana for decades, with a few isolated and sporadic cases reported since 2004. Because many cases are asymptomatic or have only minor symptoms, most of these people are identified only when giving blood. From 2006 to 2015, the highest number of Chagas cases were diagnosed in 2013 (Figure 1).

Figure 1: Chagas Disease Cases by Year and Case Status
Louisiana, 2006-2015



Overall, as of December 15, 2015, there have been 9 confirmed cases and 4 suspect cases reported to IDEpi. Ten unreported infections among Louisiana residents were identified during screening of blood donations by radio-immunoprecipitation assay (RIPA) at blood banks. These reactive donors were reported to the American Association of Blood Banks but were not reported to IDEpi. This increase in reactive blood donation screenings does not represent a true increase in confirmed cases because the test is highly sensitive with many false positive tests, and more testing overall is likely to increase the number of reactive donations. A single antibody screening test is not considered diagnostic alone due to these tests having high sensitivity and low specificity, which may lead

(continued on page 4)

Virologic Surveillance Summary: Louisiana, 2015

Julie Hand, MSPH

The Louisiana Department of Health and Hospitals' laboratory has tested 92 surveillance samples from 8 sites during the first 6 weeks of influenza season. Only 3 of those were positive; 1 was an influenza A/H3, and 2 were influenza B. Both of the influenza B viruses were genotyped as B/Victoria, which is included in the trivalent and quadrivalent vaccine this year.

Please remember to include rapid test information on all surveillance samples submitted, as this allows for better assessment of rapid test performance. Of the 60 samples with rapid test results reported, 1 was false positive, 1 was false negative, and 58 were true negative.

At the state laboratory, 18 samples have been acceptable for the xTAG Respiratory Virus Panel (RVP) so far, and 11 (61%) were positive, which is very high compared with 2 previous years. Nine of the 11 (82%) were rhinovirus, 1 was Adenovirus B/E, and 1 was RSV B.

Clinical labs have reported on 767 RVP tests in the last 6 weeks, with 624 (81%) positivity (Table).

Table: RVP Results: Louisiana, October-November, 2015

Non-influenza Virus	Percentage (%) of Number Positive
Adenovirus	114 (18.3)
Coronavirus	30 (4.8)
Metapneumovirus	2 (0.3)
Parainfluenza 1	81 (13.0)
Parainfluenza 2	1 (0.2)
Parainfluenza 3	6 (0.9)
Parainfluenza 4	31 (4.9)
Rhino/Enterovirus	334 (53.6)
RSV	25 (4.0)

For the latest influenza-related weekly reports, please visit http://new.dhh.louisiana.gov/index.cfm/page/1591. For more information on becoming a sentinel site, contact Julie Hand at (504) 568-8298 or julie.hand@la.gov.

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Derailment Incidents Review Louisiana, 2005-2014

Xiaoping Nie, PhD; William "Clay" Trachtman, MS; Dianne Dugas, MSW, MPH

Louisiana, being one of the top refiners of crude oil in the nation as well as the third largest producer of natural gas, relies heavily for its land transportation on pipelines, trains, and trucks. The consequence of a derailment could be devastating to the surrounding area when rail cars are carrying large volumes of chemical(s). A descriptive analysis of some of the contributing factors of those derailments is a critical and beginning step in determining a rational allocation of resources to reduce these occurrences. The data on derailment incidents in Louisiana over a 10-year period (2005-2014) are summarized in this review.

Methods

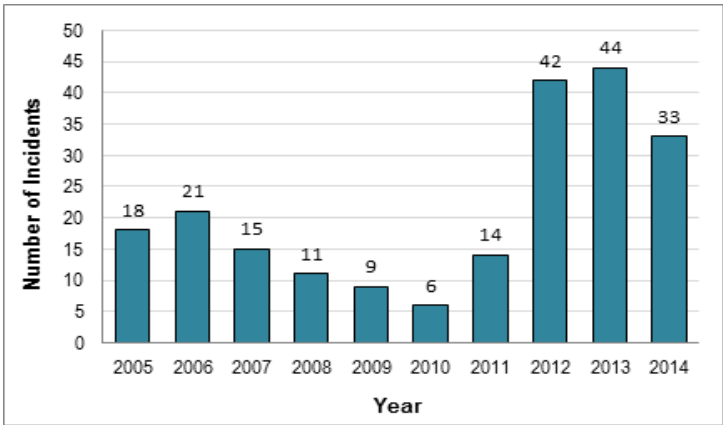
A dataset for the rail incidents reported to the Louisiana State Police (LSP) between 2005 and 2014 was provided through the courtesy of the LSP as Microsoft Excel spreadsheets. These spreadsheets were imported into a Microsoft Access database. In total, 213 derailment incidents in Louisiana were reported to the LSP between 2005 and 2014.

Results

1) Derailments Yearly/Monthly Trend

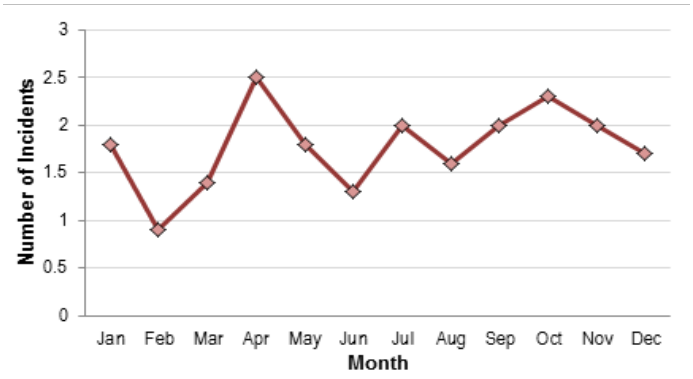
The number of reported derailments in Louisiana increased from 2005 to 2006 and then decreased steadily from 2006 to 2010. The lowest number of reported derailments among the 10-year period was in 2010. The number of derailments more than doubled from 6 to 14 from 2010 to 2011 and then sharply increased again from 14 to 42 incidents from 2011 to 2012, remaining at an elevated level through 2014 (Figure 1).

Figure 1: Reported Derailment Incidents Number by Year Louisiana, 2005-2014



Over the 10-year time period, the compilation of the data shows that there were an average of 1.8 derailment incidents reported per month for the decade, with an average range of 0.9 in February to a high of 2.5 in April (Figure 2).

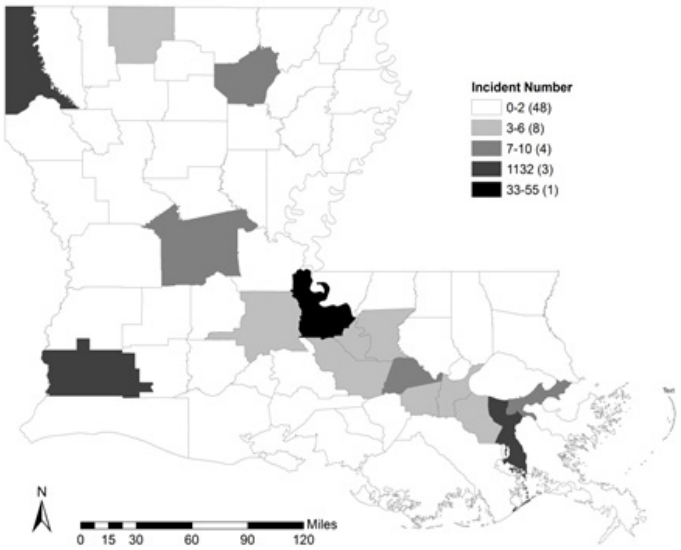
Figure 2: Ten-Year Monthly Average Reported Derailment Incidents Louisiana, 2005-2014



2) Derailments by Parishes and Cities

From January 2005 to December 2014, Pointe Coupee Parish in Region 2* had the largest number of reported derailments (55, 26%) in Louisiana. Other parishes reporting high numbers of derailments were Caddo in Region 7 (32, 15%) and Jefferson in Region 1 (21, 10%). The total number of accidents from these 3 parishes accounted for more than 50% of the state total. It is noteworthy to mention that, among 64 parishes in Louisiana, 48 parishes have no more than 2 reported derailment incidents during this 10-year review period (Figure 3).

Figure 3: Distributions of Reported Derailment Accidents by Parishes Louisiana, 2005-2014



The Jenks Optimization ('Natural Breaks') Method of map classification is used to display the data. This method attempts a non-biased grouping of data values. http://support.esri.com (GIS Dictionary).

The cities with the highest number of reports of accidental release are Livonia in Pointe Coupee Parish (54 cases, 25%) and Shreveport in Caddo Parish (29 cases, 14%).

3) Derailment Types

Four types of derailments were identified in the database. The

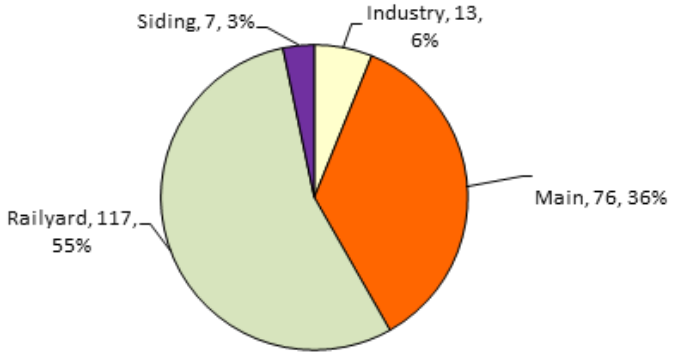
** Map of Regions on Page 7*

(continued on page 4)

Derailment ... continued from page 3)

majority of the derailments happened on rail yard tracks, followed by main tracks, industrial facility tracks, and siding tracks (Figure 4).

Figure 4: Number of Reported Derailments by Types Louisiana, 2005-2014



4) Public Safety Impact from Derailment incidents

Of the 213 reported derailment incidents, 5 incidents resulted in injury, 5 incidents resulted in evacuation, and 3 incidents resulted in shelter-in-place. During the time period reviewed, there were no derailments in Louisiana that resulted in any fatality. All of these injuries were associated with a chemical release caused by the derailment. However, the vast majority of the reported derailments (197, 92.5%) did not result in any chemical release. It appears that derailments had no major health and/or safety impact in Louisiana for the time period reviewed. However, the importance of preparedness for a derailment disaster emergency should never be underestimated.

Conclusion

The 10-year Louisiana derailment data shows that, although the effect of derailment to public health has been relatively minor to date, the increased number of derailments in recent years should alert industries, local authorities, and local communities to the risk of potential disaster associated with a major derailment event. It is recommended that all groups involved (local, state, federal, and industry) continue to work together to increase awareness of the dangers of transporting chemicals through populated areas. As such, the Louisiana Department of Health and Hospitals will continue to monitor derailment events within the State for planning, public education, and outreach purposes and will assist in responding to these events whenever needed.

For more information, please visit *seet.dhh.louisiana.gov* or contact Dr. Nie at (225) 342-3279 or *xiaoping.nie@la.gov*.

Ocular Worm ... continued from page 1)

infected with *Dirofilaria* species when the vector (an infected mosquito; most commonly Aedes or Anopheles, although others have been reported) takes a blood meal. During the meal, third-stage filarial larvae may enter the bite wound. The larvae may reach maturity in humans, but generally produce no further microfilariae, as humans are an abnormal host. The natural hosts of *D. tenuis* are raccoons. It is found wherever raccoons are present, although it is most concentrated in the Southeastern area of the United States. The last reported case in Louisiana of ocular infection with *D. tenuis* was in August 2008*.

The most common clinical manifestation of *D. tenuis* are lesions, which may develop in many parts of the body but are most common in the conjunctiva, eyelid, scrotum, breast, arm, and leg. The lesion may develop into a subcutaneous nodule that may be painful and tender. In many cases, the worm may wander in subcutaneous tissue for months before developing the nodule. The prevalence of asymptomatic *Dirofilaria* infections is unknown.

Treatment involves removal of worms and any subcutaneous nodules; in most cases, drug treatment is unnecessary. The patient has reported no further symptoms after the worm was removed. Since humans are accidental hosts and are not involved in transmission cycles, there is no threat of person-to-person transmission. *Dirofilaria* infections can be prevented by preventing bites from infected mosquitoes.

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

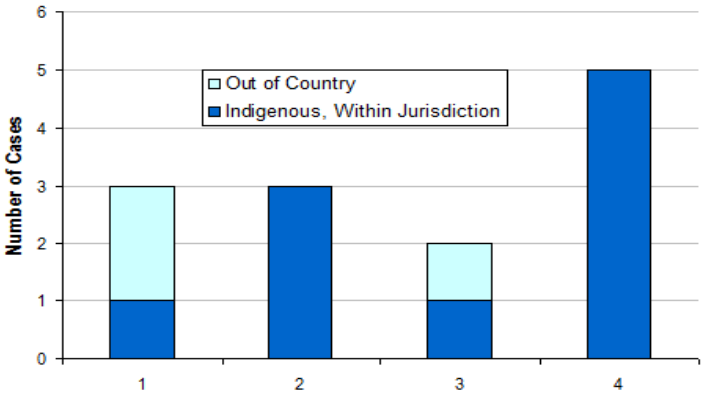
* Refer to *http://new.dhh.louisiana.gov/assets/oph/Center-PHCH/Center-CH/infectious-epi/LMR/2000-2010/2008/novdec08.pdf* for more information.

Chagas Alert ... continued from page 2)

to an increased number of false positive tests. A specimen should be collected and sent to a reference laboratory (e.g., Focus or Quest) or the Centers for Disease Control and Prevention (CDC) for additional testing. For questions regarding diagnostic considerations, please contact Parasitic Diseases Inquiries at (404)718-4745 or *chagas@cdc.gov*.

From 2006 to 2015, 77% of the reported cases among Louisiana residents (10 of 13) were acquired within state with no cases being reported in Regions 5,6,7,8 or 9 (Figure 2).

Figure 2: Chagas Disease Cases by Region and Jurisdiction (Including Both Confirmed and Suspect) - Louisiana, 2006-2015



At *http://new.dhh.louisiana.gov/assets/oph/Center-PHCH/Center-CH/infectious-epi/EpiManual/ChagasFlyerCDCTestPositive.pdf* there is a 1-page summary prepared by the CDC regarding blood donors screening reactive to *T. cruzi*.

For questions or concerns about transmission and risk in Louisiana, please refer to *http://new.dhh.louisiana.gov/assets/oph/Center-PHCH/Center-CH/infectious-epi/PublicInfo/ChagasPublicInfo.pdf*.

IDEpi Question/Answer Corner

What laboratory tests are currently offerred through the Louisiana Office of Public Health Laboratory for suspect cases of measles, mumps, rubella, and varicella seen in a clinical setting?

Clinicians should always consult with the Infectious Disease Epidemiology Section at (800) 256-2748 regarding suspected cases of measles, mumps, rubella, and varicella. For more information on collection methods for the diseases listed, please visit http://new.dhh.louisiana.gov/index.cfm/page/531.

Disease	Test	Lab	Source
Measles	Serology (IgG, IgM)	OPH Lab*, CDC	Serum
	PCR	OPH Lab*, MN Lab	Nasopharyngeal aspirate/swab, urine
	Genotyping	MN Lab	
Mumps	Serology (IgG, IgM)	OPH Lab*, CDC	Serum
	PCR	OPH Lab*, MN Lab	Buccal swab, nasal swab
	Genotyping	MN Lab	
Rubella	Serology (IgG)	OPH Lab	Serum
	PCR	MN Lab	Throat swab, nasopharyngeal aspirate/swab
	Genotyping		
Varicella	PCR	MN Lab	Dry skin lesion swabs/scabs
	Genotyping		

**Testing is part of OPH Laboratory validation process and is for Epidemiology purposes only;*
CDC = Centers for Disease Control and Prevention; MN Lab = Minnesota Public Health Laboratory Vaccine Preventable Disease Reference Center

Are counts higher than 30,000 CFU/mL acceptable levels of Comamonas testosterone or Pseudomonas alcaligenes in drinking water?

Comamonas testosteroni/Pseudomonas alcaligenes is generally a non-pathogenic bacteria commonly found in the soil. It is extremely rarely found in human infections and because of this, it is considered to be "non-pathogenic" (i.e., not able to produce human disease except on very rare exceptions). The EPA HPC displays no specific limits on this bacteria. Therefore it is reasonable to conclude that a count of 30,000 CFU/ml may be in water safe to drink.

For more information, visit http://new.dhh.louisiana.gov/assets/oph/Center-PHCH/Center-CH/infectious-epi/EpiManual/WaterBacteriaManual.pdf.

Good quality drinking water is NOT sterile. There are rules from the US Environmental Protection Agency (EPA) for the testing of coliforms in drinking water and for a few other pathogens (*Cryptosporidium, Giardia, Legionella,* and enteric viruses), but there are no specific limits for all thousands of bacterial species. The EPA also lists heterotrophic plate counts (HPC).

Heterotrophs are broadly defined as microorganisms that require organic carbon for growth and include bacteria, yeasts and molds. The HPC is an analytic method used to measure a range of bacteria that are naturally present in the environment. The lower the concentration of bacteria in drinking water, the better maintained the water system is; however, a HPC number is not linked to any health effect. More information can be found at http://www.who.int/water_sanitation_health/dwq/HPCFull.pdf .

If it is not sterile and free of enteric bacteria (E.coli and company), how much risk is posed by these other bacteria in drinking water?

A number of studies have yielded virtually the same characteristic spectrum of heterotrophic bacterial strains. The predominant species in this spectrum are A*cinetobacter spp., Aeromonas spp., Alcaligenes spp., Comamonas spp., Enterobacter spp., Flavobacterium spp., Klebsiella spp., Moraxella spp., Pseudomonas spp., Sphingomonas spp., Stenotrophomonas spp.*, atypical *Mycobacterium spp., Bacillus spp*., and *Nocardia.*

There is no clear-cut evidence that heterotrophic bacteria pose a public health risk, particularly when they are ingested by healthy people via drinking water (Rusin et al. 1997; Colford et al. 2002). A risk assessment performed by Rusin et al. 1997 on animals as well as on human volunteers yielded the oral doses of different microorganisms that are necessary to cause an infection (Table).

Table: Microorganism and Infectious Oral Dose Numbers

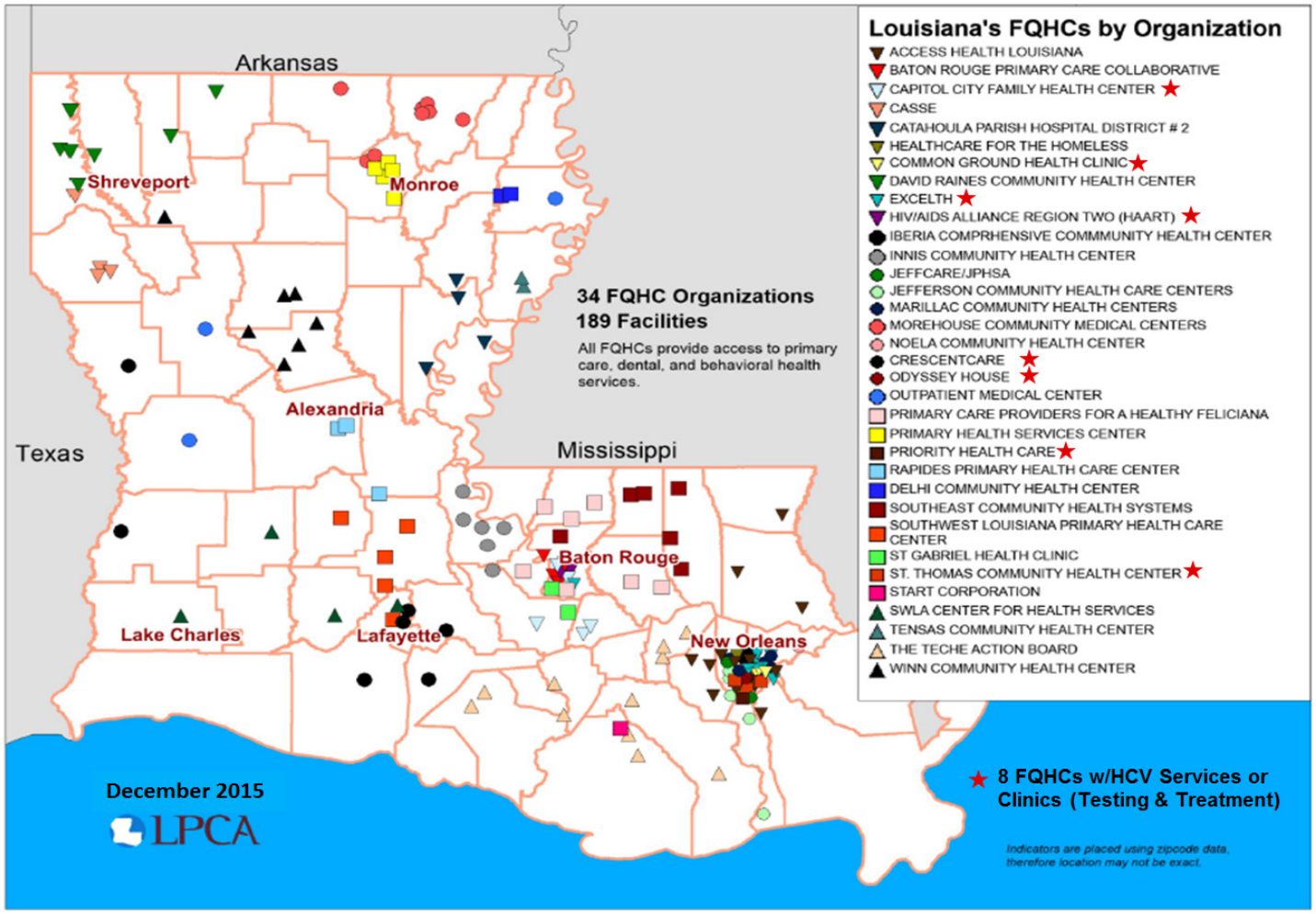
Pseudomonas aeruginosa	10^8-10^9 cfu	100 million to 1 billion
Aeromonas hydrophila	> 10^{10} cfu	More than 10 billion
Mycobacterium avium	10^4-10^7 cfu	10 thousand to 10 million
Xanthomonas maltophilia	10^6-10^9 cfu	1 million to 1 billion

These risk assessments were primarily based on potential infection by ingestion; the risk is considerably higher for persons undergoing antibiotic therapy or immunodeficient persons. The risk assessments are not applicable to dermal or inhalation exposure or to persons with invasive devices, such as indwelling urinary catheters or intravenous catheters.

Overall, the evidence suggests that specific members of HPC bacteria found in drinking water may be causative agents of both hospital- and community-acquired infections. However, the case numbers may be very low and risks represent levels generally less than 1 per 10,000 for a single exposure to the bacterial agent. For more information, visit http://www.who.int/water_sanitation_health/dwq/HPC2.pdf.

Hepatitis C Testing Support - Federally Qualified Health Centers: Louisiana, 2015

Federally qualified health centers (FQHCs) provide support through section 330(e) to community health centers that provide services to the underserved throughout a community, including the uninsured and low-income populations, regardless of ability to pay. These services include access to primary care, preventative, emergency, dental, and behavioral health services. For more information on services provided, please visit http://new.dhh.louisiana.gov/index.cfm/page/797. For a list of services in the New Orleans area or more information about hepatitis C, please visit http://new.dhh.louisiana.gov/index.cfm/page/1012.



Announcements

Save the Date!
April 2, 2016

Hepatitis C Consortium – New Orleans Area

January 2015 is National Birth Defects Prevention Month!

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

Annual Reports: Blastomycosis; Cyclosporiasis; *Escherichia coli* 0157 H7; Giardiasis; Hantavirus; Several Year Comparison 2013-2015; *Vibrios*

Epidemiology Manual: Chagas Test Positive Flyer (CDC); Chagas Public Info; Chagas Public Info-Spanish; *Clostridium perfringens*; Mumps; Necrotizing Fasciitis Public Info; Rocky Mountain Spotted Fever; Water Bacteria

Hepatitis: Federally Qualified Centers in Louisiana with Hepatitis C Services Map and New Orleans Area List

Influenza: Weekly Report

Regional Information: Regions 2, 4 and 7

Table: Communicable Disease Surveillance, Incidence by Region and Time Period, September-October, 2015

DISEASE		HEALTH REGION 1	2	3	4	5	6	7	8	9	TIME PERIOD Sep-Oct 2015	Sep-Oct 2014	Jan-Dec Cum 2015	Jan-Dec Cum 2014	Jan-Dec % Chg*
Vaccine-preventable															
Hepatitis B	Cases	2	8	1	1	0	1	0	1	4	18	15	72	74	NA*
	Rate[1]	0.2	1.4	0.3	0.2	0	0.3	0	0.3	1.0	0.4	0.3	1.7	1.7	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		1	1	1	0	1	0	3	0	0	7	7	38	70	-45.7
Sexually-transmitted															
HIV/AIDS	Cases[2]	81	48	9	15	7	7	18	15	13	213	205	1040	1047	-0.7
	Rate[1]	9.7	7.2	2.2	2.6	2.4	2.3	3.3	4.2	2.4	4.7	4.5	22.9	23.1	NA*
Chlamydia	Cases[1,3]	1,287	787	389	690	312	279	658	552	492	5,446	5,789	21,410	23,049	-7.1
	Rate[1]	146.2	116.6	96.1	115.7	105.7	90.3	119.8	154.9	88.0	117.7	125.2	462.9	498.3	NA*
Gonorrhea	Cases[1,3]	428	261	93	183	76	61	166	190	111	1,569	1,812	6,454	7,066	-8.7
	Rate[1]	48.6	38.7	23.0	30.7	25.8	19.7	30.2	53.3	19.9	33.9	39.2	139.5	152.8	NA*
Syphilis (P&S)	Cases[1,3]	12	9	7	7	3	9	17	5	7	76	131	492	470	4.7
	Rate[1]	1.4	1.3	1.7	1.2	1.0	2.9	3.1	1.4	1.3	1.6	2.8	10.6	10.2	NA*
Enteric															
Campylobacter	Cases	5	5	3	1	3	6	0	1	2	26	43	185	226	-18.1
Hepatitis A	Cases	0	0	0	0	0	0	0	0	0	0	0	3	5	NA*
	Rate[1]	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	NA*
Salmonella	Cases	27	30	32	75	29	19	39	33	46	330	351	1147	1100	4.3
	Rate[1]	2.6	5.3	8.5	14.5	10.8	6.2	7.7	9.4	11.9	7.6	8.1	26.6	25.5	NA*
Shigella	Cases	10	5	4	5	1	4	7	16	1	53	15	173	127	36.2
	Rate[1]	1.0	0.9	1.1	1.0	0.4	1.3	1.4	4.6	0.3	1.2	0.3	4.0	2.9	NA*
Vibrio, cholera	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Vibrio, other	Cases	4	0	0	1	0	0	0	0	2	7	10	48	46	NA*
Other															
H. influenzae (other)		0	0	1	0	1	2	0	1	2	7	6	49	41	19.5
N. Meningitidis		0	0	0	0	0	0	0	0	0	0	2	4	6	NA*

[1] = Cases Per 100 000 Population.

[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.

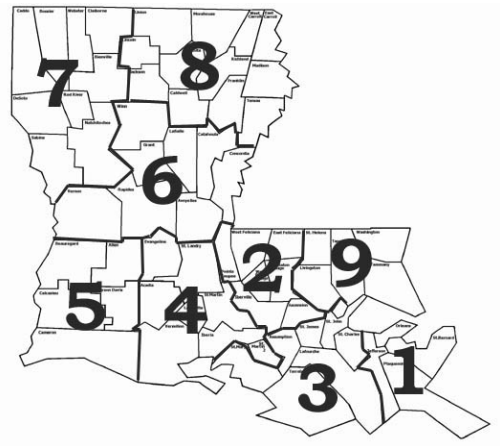
Table 2. Diseases of Low Frequency, January-December, 2015

Disease	Total to Date
Legionellosis	38
Lyme Disease	2
Malaria	11
Rabies, animal	4
Varicella	93

Table 3. Animal Rabies, September-October, 2015

Parish	No. Cases	Species
	0	

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.

- Acute Flaccid Paralysis
- Anthrax
- Avian or Novel Strain Influenza A (initial detection)
- Botulism
- Brucellosis
- Cholera
- *Clostridium perfringens* (foodborne infection)
- Diphtheria
- Fish/Shellfish Poisoning (domoic acid, neurotoxic shellfish poisoning, ciguatera, paralytic shellfish poisoning, scombroid)
- Foodborne Infection
- *Haemophilus influenzae* (invasive infection)
- Influenza-associated Mortality
- Measles (Rubeola imported or indigenous)
- *Neisseria 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 (Ebola, Lassa, Marburg, Crimean Congo, etc.)
- 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 Viral Infections (West Nile, Dengue, St, Louis, California, Eastern Equine, Western Equine, Chikungunya, Usutu, and others)
- Aseptic Meningitis
- Babesiosis
- Chagas Disease
- Chancroid
- *Escherichia coli*, Shiga-toxin producing (STEC), including *E. coli* O157:H7
- Granuloma Inguinale
- Hantavirus (infection or Pulmonary Syndrome)
- Hemolytic-Uremic Syndrome
- Hepatitis A (acute illness)
- Hepatitis B (acute illness and carriage in pregnancy)
- Hepatitis B (perinatal infection)
- Hepatitis E
- Herpes (neonatal)
- Human Immunodeficiency Virus[2] [(HIV), infection in pregnancy]
- Human Immunodeficiency Virus[2] [(HIV), perinatal exposure]
- Legionellosis
- Malaria
- Mumps
- Salmonellosis
- Shigellosis
- Syphilis[1]
- Tetanus
- Tuberculosis[3] (due to *M. tuberculosis*, *M. bovis, or 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[3] (AIDS)
- *Anaplasma Phagocytophilum*
- Blastomycosis
- Campylobacteriosis
- Chlamydial infection[1]
- Coccidioidomycosis
- Cryptococcosis (*C. neoformans* and *C. gattii*)
- Cryptosporidiosis
- Cyclosporiasis
- Ehrlichiosis (human granulocytic, human monocytic, *E. chaffeensis* and *E. ewingii)*
- *Enterococcus*, Vancomycin Resistant [(VRE), invasive disease]
- Giardiasis
- Glanders (*Burkholderia mallei*)
- Gonorrhea[1] (genital, oral, ophthalmic, pelvic inflammatory disease, rectal)
- Hansen's Disease (leprosy)
- Hepatitis C (acute illness)
- Histoplasmosis
- Human Immunodeficiency Virus[2] (HIV (infection other than as in Class B)
- Human T Lymphocyte Virus (HTLV I and II infection)
- Leptospirosis
- Listeriosis
- Lyme Disease
- Lymphogranuloma Venereum[1]
- Melioidosis (*Burkholderia pseudomallei)*
- Meningitis, Eosinophilic (including those due to *Angiostrongylus* infection)
- Nipah Virus Infection
- Non-gonococcal Urethritis
- Ophthalmia neonatorum
- 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 (all ages)[4, 5]
- Pesticide-Related Illness or Injury (all ages)[5]
- Phenylketonuria[4]
- Pneumoconiosis (asbestosis, berylliosis, silicosis, byssinosis, etc.)
- Radiation Exposure, Over Normal Limits
- Reye's Syndrome
- Severe Traumatic Head Injury
- Severe Undernutrition (severe anemia, failure to thrive)
- Sickle Cell Disease[4] (newborns)
- 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 (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 form TB 2431 (8/94). Mail form to TB Control Program, DHH-OPH, P.O. Box 60630, New Orleans, LA. 70160-0630 or fax both sides of the form to (504) 568-5016

[4]Report to the Louisiana Genetic Diseases Program and Louisiana Childhood Lead Poisoning Prevention Programs: www.genetics.dhh.louisiana.gov or fascimile (504) 568-8253, telephone (504) 568-8254, or (800) 242-3112

[5]Report to the Section of Environmental Epidemiology and Toxicology: www.seet.dhh.louisiana.gov or call (225) 342-7136 or (888) 293-7020

All **laboratory facilities** shall, in addition to reporting tests indicative of conditions found in §105, report positive or suggestive results for additional conditions of public health interest. The following findings shall be reported as detected by laboratory facilities: 1. adenoviruses; 2. coronaviruses; 3 .enteroviruses; 4. hepatitis B (carriage other than in pregnancy); 5. hepatitis C (past or present infection); 6. human metapneumovirus; 7. parainfluenza viruses; 8. respiratory syncytial virus; and 9. rhinoviruses.