Louisiana Morbidity Report

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Annual School Vaccination Rates - Louisiana, 2017-2018

Stacy Hall, RN MSN; Quan Le, RN

The Louisiana Office of Public Health (OPH) Immunization Program collects information from the Louisiana Immunization Network (LINKS)' School Nurse Module for an annual school vaccination rate report each school year. Data is provided as percentage complete by parish for non-public and public schools.

These immunization rates are assessed by parish for kindergarten and sixth-graders. The kindergarten assessment includes 4:3:2:3:2 (DTaP, Polio, MMR, HepB, VAR*) vaccines. The sixth grade assessment includes 1:2:2:3:1 (Tdap, MMR, VAR, HepB, MCV4).

This report is submitted to the Centers for Disease Control and Prevention, shared within the Louisiana Department of Health, OPH and with the Louisiana Department of Education (LDOE). The table below provides information from previous assessments for comparison.

Percentage of Students Who Are Up-to-date for the Recommended Vaccination Series - Louisiana, 2014-2018

	Kindergarten		Sixth Grade	
School Year	Non-Public	Public	Non-Public	Public
2014-2015	93.1%	96.6%	84.1%	89.3%
2015-2016	94.4%	96.8%	86.0%	90.3%
2016-2017	92.9%	96.2%	87.2%	87.9%
2017-2018	88.1%	95.2%	82.1%	87.0%

** DTaP = Diphtheria, Tetanus, and Pertussis; MMR = Measles, Mumps, & Rubella; HepB = Hepatitis B; VAR = Varicella; MCV4 = Meningococcal*

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Inside

Don't Swallow the Water!

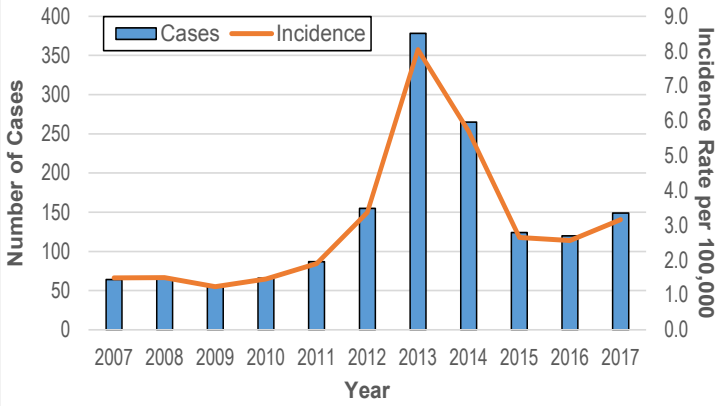
Angie Orellana, MPH

Cryptosporidiosis is a gastrointestinal disease caused by the protozoan parasite *Cryptosporidium*, or "crypto." Infection with crypto typically causes watery diarrhea in immunocompetent persons lasting two to three weeks. Some people have asymptomatic infections while immunocompromised hosts may experience prolonged diarrhea and in severe cases extraintestinal manifestations, such as pulmonary disease. Symptoms typically begin within two to ten days of becoming infected.

Cryptosporidium is found in every region of the United States and throughout the world, and lives in the gut of infected hosts, which can include mammals, birds, fish, and reptiles. There are many different species that can infect humans. *C. parvum* and *C. hominis* are the two species most commonly associated with human illness. Crypto oocysts, the infectious stage, are excreted in the feces of an infected host and communicable immediately. Infected persons shed oocysts at symptom onset and may continue shedding for several weeks after symptoms stop. Millions of oocysts may be excreted in a single bowel movement; it has been reported that as few as 10 to 30 oocysts can cause infection in healthy persons, leading to a high disease potential. People are most commonly infected with crypto when they swallow water contaminated with the parasite. Other routes of transmission include eating contaminated food or direct contact with an infected person, animal, or their environment.

Since 2007, Louisiana averages 139 cases reported each year with an annual incidence rate of 3.01 cases per 100,000 population (Figure).

Figure: Reported Cryptosporidiosis Cases and Incidence Rates Louisiana, 2007-2017



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Diagnostic Stewardship for Healthcare-associated Infections Louisiana, 2015-2017

Fatima Brakta, Pharm.D BCPS-AQ ID; Erica Washington, MPH CPH CIC CPHQ

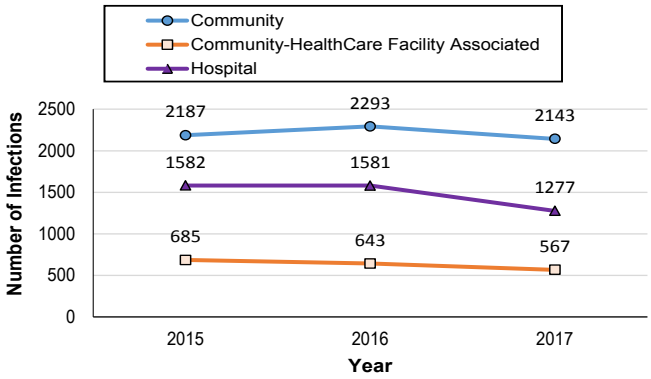
Diagnostic stewardship is a term that has been pushed by the Society for Healthcare Epidemiology of America (SHEA) in recent months. According to an article published by Madden et. al. *[Madden GR, Weinstein RA, and Sifri CD. Diagnostic stewardship for healthcare-associated infections: opportunities and challenges to safely reduce test use. Infection Control and Hospital Epidemiology 2018;39(2):214-218]*, correctly implementing diagnostic stewardship entails coordinating systems and interventions to promote evidence-based utilization of diagnostic tests to improve quality, safety, and reduce costs. As the term connotes, diagnostic stewardship directly correlates with antibiotic stewardship. Fully competent antibiotic stewardship programs in healthcare settings must ensure that only necessary laboratory diagnostics are conducted, thereby guaranteeing that subsequent antimicrobial therapies are appropriate.

Several healthcare-associated infections (HAI) may serve as outcome measures to approximate the strength of diagnostic stewardship in acute care settings. These infections include *Clostridium difficile* (CDIFF), catheter-associated urinary tract infections (CAUTI), central line-associated bloodstream infections (CLABSI), and ventilator-associated pneumonia (VAP). According to the Patient Safety (PSC) Manual for the Centers for Disease Control and Prevention (CDC) National Healthcare Safety Network (NHSN), there are three definitions for CDIFF infections: community onset (CO), hospital onset (HO), and community-onset healthcare facility associated (CO-HCFA), (*https://www.cdc.gov/nhsn/pdfs/pscmanual/pcsmanual_current.pdf*).

Hospital onset (HO) CDIFF are those infections that are identified on days four or greater of hospitalization. CDIFF infections that are HO and identified on days four or five of hospital stay may, in some instances, represent the following: 1) gaps in communicating test orders, or 2) not capturing signs/symptoms that presented earlier during admission. The CDC has promoted the *7 Core Elements of Antibiotic Stewardship* for several years (leadership, accountability, drug expertise, action, tracking, reporting, and education). Several elements (e.g., action, tracking, reporting, and education) directly correlate with diagnostic stewardship.

The Healthcare-Associated Infections and Antibiotic Resistance (HAI/AR) Program reviewed CDIFF HO infections from 2015 to 2017. Data were subset to identify infections that were documented on days four and five of hospitalization. Data were then linked to the NHSN *7 Core Elements of Antibiotic Stewardship* line list to determine if facilities that had high percentages of these early-onset HO self-reported their antibiotic stewardship programs as meeting each of the seven core elements. Three-year trends in Clostridium difficile by onset type are described in the Figure.

Figure: Trends in *Clostridium difficile* by onset - Louisiana, 2015-2017



There were 3,987 CDIFF reported by Louisiana acute care hospitals in 2017 of which 1,277 (32%) were HO. Among the HO infections, the average days from admission to specimen collection date was 15 days (range: four to 69 days). Of the HO, 383 (30%) were identified on either day four (n=208) or day five (n=175). Fifty-two hospitals accounted for HO CDIFF specimens tested on days four and five of admission. Most of these facilities self-reported fully competent antibiotic stewardship programs that met all seven core elements (n=39).

These data demonstrate two needs: reinforcing the concept of diagnostic stewardship through education of bedside clinicians and hospital laboratorians, and validation of antibiotic stewardship programs. Making protocols that guide diagnostic testing may be made into algorithms that demonstrate workflow and testing appropriateness. The HAI/AR Program will validate hospital antibiotic stewardship programs later this year. Validation of stewardship programs will assist our program with meeting knowledge gaps on proper antibiotic stewardship program implementation and resource needs. For more information about the HAI/AR Program, visit *www.ldh.la.gov/HAI*.

World Rabies Day - September 28, 2018

... is the anniversary of the death of Louis Pasteur who, with the collaboration of his colleagues, developed the first efficacious rabies vaccine

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Heartland and Bourbon Viruses - Updated Testing Information

The Centers for Disease Control and Prevention (CDC) has been working with state health departments under the U.S. Food and Drug's-approved protocols to identify additional cases of Heartland or Bourbon virus disease, and validate diagnostic tests for these novel pathogens. Enrollment into the protocols has been concluded and the CDC Arboviral Diseases Branch will now offer routine diagnostic testing for Heartland and Bourbon viruses through the Infectious Disease Epidemiology Section (IDEpi), Louisiana Department of Health (LDH).

Heartland virus is an RNA virus in the genus *Phlebovirus*, family Phenuiviridae believed to be transmitted by the Lone Star tick (*Amblyomma americanum*). It was first discovered as a cause of human illness in 2009 in Missouri. More than 35 cases of Heartland virus disease have been reported from the midwestern and southern U.S. to date. Most people diagnosed with the disease became sick during May through September.

Bourbon virus is an RNA virus in the genus *Thogotovirus*, family Orthomyxoviridae that was recently discovered in Bourbon County, Kansas. Only a few cases of Bourbon virus disease have been identified in the U.S.; the geographic distribution appears to be similar to that of Heartland virus. Although it is not yet known how people become infected with Bourbon virus, most patients reported exposure to ticks before becoming ill. The virus has been identified in Lone Star ticks.

Symptoms for both diseases have included fever, fatigue, anorexia, nausea, and diarrhea. Patients with Bourbon virus disease might also present with a diffuse, maculopapular rash. Both viruses have been found to cause leukopenia, thrombocytopenia, and elevated liver transaminases.

Since more experience and understanding is needed about the timing and duration of the viremia and antibody response to Heartland and Bourbon virus infections, patients should be screened by IDEpi, LDH to determine if testing is appropriate.

Testing for Heartland or Bourbon virus should be considered for patients with an acute febrile illness within the past three months, AND at least one epidemiologic criterion, AND at least one clinical criterion.

Epidemiologic Criteria

1) Known tick bite, finding a tick on the body, or potential exposure to ticks through outdoor activities in the three weeks prior to illness onset during spring through fall (e.g., April–October);

OR

2) Resides in or recently traveled to an area with previous evidence of Heartland or Bourbon virus.

Clinical Criteria

1) Leukopenia (white blood cells <4,500 cells/µL) or thrombocytopenia (platelets <150,000 cells/mL) not explained by another known condition;

OR

2) Suspected tickborne disease (e.g., ehrlichiosis, Rocky Mountain spotted fever) with no clinical response to appropriate treatment (e.g., doxycycline)

Samples collected more than three months after symptom onset will not be tested at this time based on limitations of current understanding of antibody kinetics.

For more information please contact Sean Simonson at (504) 568-8342 or *sean.simonson@la.gov*.

(Don't Swallow the Water ... continued from page 1)

Numbers of reported cases are likely lower than the actual disease burden due to the asymptomatic nature of the illness as well as underreporting of cases, particularly mild ones. Diagnostic limitations may also contribute to lower numbers. *Cryptosporidium* testing has to be specifically requested by a healthcare provider as it is not usually part of routine laboratory stool studies. Moreover, multiple stool specimens may need to be collected due to the potential for intermittent shedding of the parasite throughout illness.

The 2013 increase in reported cases was due to an outbreak starting mid-July and lasting until December and associated with contaminated water exposure. This outbreak is thought to have been a continuous community-wide outbreak instead of a single point source outbreak as many private and public water venues across the state were identified in this six-month time period.

Cryptosporidium is the leading cause of waterborne disease in the U.S. as well as the number one cause of swimming pool-related diarrheal outbreaks. Thick-walled crypto oocysts are able to survive in the environment for long periods of time and are resistant to most chemical disinfectants. Crypto can survive for days in a properly chlorinated pool. Steps taken to prevent infection with *Cryptosporidium* include:

- Practice good hand washing
- Stay out of the water until two weeks after diarrhea stops
- Shower before you get in the water
- Don't pee or poop in the water
- Take kids on bathroom breaks every hour
- Don't change diapers poolside

AND

- **Don't swallow the water!**

For more information contact Angie Orellana at (337) 262-1641 or *angie.orellana@la.gov* or go to *http://ldh.la.gov/assets/oph/Center-PHCH/Center-CH/infectious-epi/EpiManual/CryptosporPublicInfo.pdf angie.orellana@la.gov*.

Save the Date!

Field Epidemiology Training -2018

Natchitoches - September 19

This is a one-day workshop sponsored by the Department of Health's, Office of Public Health, Infectious Disease Epidemiology Section. It targets nurses, laboratory personnel, sanitarians, and other health care professionals interested in epidemiological principles and outbreak investigations.

This workshop is free to attend, but must be registered for because of seating limitations and to provide the adequate number of handouts. Nurse, laboratory and sanitarian education credits have been applied for.

Please go to *http://ldh.la.gov/index.cfm/page/1816* for a registration form and more information.

Treatment Of Latent Tuberculosis Infection (LTBI) in the Louisiana Tuberculosis Control Program, 2011-2015

Louis Trachtman, MD MPH; William Preston, MD MPH; Tarek Salih, MD; Charles DeGraw, BS; Michael Lacassagne, MPH; Roma Oliveri, RN MSN

Persons with latent tuberculosis infection (LTBI) have no signs or symptoms of active disease. They are not required by law to be treated in Louisiana, unlike all persons with active TB disease who are required to be treated. With few exceptions, treatment for LTBI is generally recommended by expert authorities because the activation rate for LTBI to active disease is not insignificant and does occur in otherwise healthy persons. It is even significantly higher in those persons with a co-morbidity or underlying immunocompromising conditions. The Louisiana Tuberculosis Control Program offers treatment to persons of all ages diagnosed with LTBI in the state.

The recommended drug treatment of LTBI is Isoniazid (INH), using a once daily or twice weekly dosage for six to nine months. Since 2011 a treatment regimen using the drugs Isoniazid and Rifapentine (RPT) once weekly for 12 weeks and given under directly observed therapy (DOT), has also been recommended. Both of these treatment regimens are offered through the Louisiana TB Control Program. The purpose of this article is to compare completion rates of these two recommended treatment regimens among persons in Louisiana treated for LTBI.

It should be noted that for those persons with LTBI not able to tolerate Isoniazid or those with LTBI who have been known to be exposed to drug-resistant TB, the drugs used in their course of treatment is individualized.

Population and Methods:

All LTBI patients of the Louisiana TB Control Program between the ages of 15 and 64 years from the years 2011 through 2015 were categorized as:

- Routine reactors: those needing TB testing because of work requirements,
- Contacts: persons who had close contact over a period of time with other persons diagnosed with active TB
- Foreign-born individuals.

In the recent past, persons born in a country other than the U.S. have become an increasingly large percentage of persons with LTBI and active TB disease treated by the Louisiana TB Control Program. The foreign born group was of special interest because of challenges sometimes posed by language and cultural barriers to outreach and treatment. Therefore, foreign-born persons were also studied as a separate category. The age group of 15 to 64 years of age was arbitrarily chosen, because it is an age grouping used by the U.S. Centers for Disease Control and Prevention for reporting and statistical purposes and is the largest number of persons with LTBI treated by the Louisiana TB Control Program. For treatment completion rates, age groupings of 15 to 24-years of age, 25 to 44-years of age and 45 to 64-years of age were used to look for differences of results among these different ages.

Results

Using ClientID as a unique identifier, there were 3,288 persons in the database with only eight of these being duplicates. The distribution of cases is presented in Table 1.

Table 1: Distribution of LTBI Cases by Sex, Age Group and Race Louisiana, 2011-2015

		Contacts	Foreign-Born	Routine Reactors	Total
Sex	Male	304	451	1056	1811
	Female	234	331	910	1475
	Unknown	1	0	1	2
	Total	**539**	**782**	**1967**	**3288**
Age Group	15-24	74	110	219	403
	25-44	145	416	749	1310
	45-64	163	181	846	1190
	Unknown	157	75	153	385
	Total	**539**	**782**	**1967**	**3288**
Race	White	220	227	788	1235
	African American	216	127	1096	1439
	Asian	52	244	20	316
	American Indian	4	1	18	23
	Pacific Islander	0	8	4	12
	Other	42	166	35	243
	Unknown	5	9	6	20
	Total	**539**	**782**	**1967**	**3288**

The data was analyzed with the goal of determining which treatment regimen (INH alone or INH/Rifapentine) was more likely to result in completion on the part of the person with LTBI, and if results differed significantly as to the persons' sex, age, and race and gender among contacts, foreign-born persons and routine reactorspersons, in particular.

The comparison of the distribution by sex, age group and race for contacts, foreign-born persons, and routine reactors (CFR) showed that:

- in the distribution by sex between the three there was no significant difference (Pearson $\gamma 2 = 4.050$ $p = 0.132$)
- among contacts there were equal proportions of Whites and African-Americans; among foreign-born, there was a higher proportion of Whites; among routine reactors,there was a higher proportion of African-Americans (Pearson $\gamma 2 = 63.4$ $p = 0.000$)
- the differences by age group were significant (extended summary Mantel=Haenszel $\gamma 2 = 32.4$ with p=0.000).

All age groups studied showed significant differences for the percentage completing INH/Rifapentine therapy versus those completing INH therapy alone, except among the foreign born people, where there was not a significant difference for the 15 to 24- and 45 to 64-year-old age groups.

Table 2 presents by categories of contacts, foreign-born persons, and routine reactors, the number of cases by sex, race and age group of those who took INH for the six to nine months LTBI treatment versus those who took the INH/Rifapentine for the 12-week directly observed therapy (DOT) and who completed the treatment or did not complete the treatment. There are 21 categories (CFR /Male-Female (MF)/White-African American (WB), and age groups 15 to 24, 25 to 44, and 45 to 64).

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- For each category the odds ratios were calculated with their confidence interval. If the confidence interval does not include one, the difference is significant at 5%.

- For each category when one of the cells was less than five, the Fisher's exact test was used.

Comparing the rows, the percentage complete between columns INH and INH/Rifapentine showed that for all the categories (sex, race and age group) the INH/Rifapentine completion rate columns are systematically higher than the columns for INH alone. For males the completion rates for INH range from 50.2% to 63.8% while the rates for INH/Rifapentine vary from 69.9% to 89%. The results were not significant in only four of the 21 categories (Table 2).

Table 2: Distribution of LTBI Cases by Completion Rates* - Louisiana, 2011-2015

			Number		Percent Complete		Odds Ratio	CI	Fisher's	Significant
			INH	INH/ RPT	INH	INH/ RPT	HRt/H			
Contact	**M**	**Compl**	155	41	66.0%	89.1%	4.23	1.9-10.2	xx	**S**
		Incomp	80	5						
Contact	**F**	**Compl**	133	33	69.6%	91.7%	4.80	xx	0.030	**S**
		Incomp	58	3						
Contact	**White**	**Compl**	132	25	72.9%	92.6%	4.64	xx	0.030	**S**
		Incomp	49	2						
Contact	**Af-Am**	**Compl**	108	42	69.2%	80.0%	7.13	xx	0.000	**S**
		Incomp	55	3						
Contact	**15-24**	**Compl**	28	18	54.9%	94.7%	14.79	xx	0.001	**S**
		Incomp	23	1						
Contact	**25-44**	**Compl**	65	22	58.6%	88.0%	5.19	xx	0.005	**S**
		Incomp	46	3						
Contact	**45-64**	**Compl**	87	23	69.0%	88.5%	3.44	xx	0.032	**S**
		Incomp	39	3						
Foreign	**M**	**Compl**	250	50	63.8%	87.7%	4.06	1.9-9.9	xx	**S**
		Incomp	142	7						
Foreign	**F**	**Compl**	133	33	69.6%	91.7%	4.80	xx	0.030	**S**
		Incomp	58	3						
Foreign	**White**	**Compl**	101	17	49.3%	85.0%	5.83	xx	0.002	**S**
		Incomp	104	3						
Foreign	**Af-Am**	**Compl**	16	74	40.0%	62.9%	1.78	0.5-7.9	0.17	**N**
		Incomp	4	33						
Foreign	**15-24**	**Compl**	59	15	64.1%	83.3%	2.80	xx	0.090	**N**
		Incomp	33	3						
Foreign	**25-44**	**Compl**	224	40	60.9%	88.9%	5.14	2.1-14.9	xx	**S**
		Incomp	144	5						
Foreign	**45-64**	**Compl**	103	23	66.9%	85.2%	2.85	xx	0.070	**N**
		Incomp	51	4						
Routine	**M**	**Compl**	481	65	50.2%	69.9%	2.31	1.4-3.7	xx	**S**
		Incomp	478	28						
Routine	**F**	**Compl**	458	96	58.5%	77.4%	2.43	1.6-3.6	xx	**S**
		Incomp	325	28						
Routine	**White**	**Compl**	101	17	55.8%	63.0%	1.35	0.6-3.0	xx	**N**
		Incomp	80	10						
Routine	**Af-Am**	**Compl**	496	86	50.9%	71.1%	2.37	1.6-3.6	xx	**S**
		Incomp	478	35						
Routine	**15-24**	**Compl**	28	18	54.9%	94.7%	14.79	xx	0.001	**S**
		Incomp	23	1						
Routine	**25-44**	**Compl**	65	22	58.6%	88.0%	5.19	xx	0.005	**S**
		Incomp	46	3						
Routine	**45-64**	**Compl**	87	23	69.0%	88.5%	3.44	xx	0.030	**S**
		Incomp	39	3						

** CI: Confidence Interval, Mid P; Fishers: p Value for Cells <5; M = Male; F = Female; Compl = Complete; Incomp = Incomplete; Foreign = Foreign-born; INH = Isoniazid; INH/RPT = Isoniazid/Rifapentine; HRt/H = Isoniazid and Rifapentine/Isoniazid; S = Significant; N = Not Significant; Af-Am = African-American*

The incidence and prevalence of TB as a public health threat in Louisiana has fallen over the past many years. As a result, there has been more recognition of LTBI as a potential cause of development of cases of active disease. Treatment of TB infection is advocated to reduce the chance of development of TB disease, especially among high-risk groups, e.g. close contacts of a person with active TB

(continued on page 6)

(Annual School Vaccination ... continued from page 1)

For this school year, the LDOE reported 13.4% of kindergarteners were in non-public schools and 86.6% in public schools; 13.0% of sixth-graders were in non-public schools and 87.0% in public schools; there were also 13,263 home study students which was slightly higher than last year's 12,792.

The non-public and public school vaccine exemption rate for Louisiana is 1.1%, an increase from the past two school years of 0.8%. Louisiana remains below the national baseline for exemption rate.

Parish level information is provided to the OPH Regions and the LDOE for awareness and to encourage continued excellence or need for improvement. Letters are mailed to each parish with congratulations for parishes achieving the performance standard of 95% and above. The Immunization Program, with regional staff, continues work with individual parishes to improve low rates. Extra focus is encouraged on those parishes in any region that falls below this standard. Annual School Assessment Maps are posted on the LDH Immunizations webpage (*http://www.ldh.la.gov/index.cfm/page/547*). November 15, 2018 is the deadline for the next school immunization assessment reporting as required by Louisiana Law.

This report is made possible with outreach by the Regional Immunization staff for reporting by school nurses and administrators. For more information, please contact the Immunization Program at (504) 568-2600.

Announcements

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

Annual: Hepatitis A; Legionella; Leptospirosis; Listeria; Lyme; Meningococcal Infections; Mumps; Murine Typhus; Norovirus; Pertussis; Plague; Poliomyelitis; Psittacosis; Respiratory Syncytial Virus (RSV); Rocky Mountain Spotted Fever (RMSF); Rubella; Salmonella; Shigella; Viral (Aseptic) Meningitis

Arboviral: Surveillance Summary CDC Week 31; Zika Key Messages (CDC); Zika Testing Guidelines Reference

Epi Manual: Bourbon Virus (CDC); *Candida auris* Public Information-Spanish; Cholera & Vibrio (COVIS) Form; Cholera & Vibrio (Restaurant Only-COVIS) Form (COVISCreutzfeldt-Jakob Disease (CJD) Public Information-Spanish; *Cyclospora*; Enterobacteriaceae; Heartland Virus (CDC); Flesh-Eating Bacteria Public Information-Spanish; Hepatitis A; Hepatitis A Summary; How to Prevent Tickbites Public Information-Spanish; Jamestown Canyon Virus Public Information-Spanish; Malaria Public Information-Spanish; Mumps Worksheet (CDC); Norovirus Public Information-Spanish; Public Information for Parents or Guardians of Infants Between the Ages of One and Six-Months, Regarding Colonization and/or Infection with *Clostridium difficile*; Q Fever; Rabies; Viral (Aseptic) Meningitis; West Nile Encephalitis Public Information-Spanish

HAI: Antibiotic Stewardship Newsletter-July 2018

Influenza: Monthly Reports for June and July; Weekly Report for May

Louisiana Morbidity Report: Index 1967-2016

Special Studies: Enhanced Surveillance for Coccidioidomycosis, 14 US States, 2016

Tickborne Diseases: Tickborne Diseases of the United States (CDC 2018)

Veterinary: Louisiana Hospitals That Carry the Rabies Vaccine

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disease, workers in the health care industry, who may come in close contact with persons with active TB disease, persons with immunocompromising conditions, and foreign-born persons, especially those persons born in countries still having a high incidence and prevalence of active TB disease among the population. Traditional treatment of LTBI with INH for six to nine months has also resulted in low compliance and completion rates. The length of treatment for an asymptomatic condition was generally viewed as the main factor responsible for the low completion rates.

In 2011 the introduction of the relatively short term effective treatment of 12 weekly doses of INH and Rifapentine has been hailed as a major breakthrough in the effort to control tuberculosis. This analysis of the results of use of that short term treatment in Louisiana over a period of about four years serves to validate the initial observations that this regimen is indeed a major successful breakthrough in public health efforts to control tuberculosis.

For more information, contact Dr. Louis Trachtman, Charles DeGraw or Michael Lacassagne at (504) 568-5015 or *louis.trachtman@la.gov*, *charles.degraw@la.gov* or *michael.lacassagne@la.gov*.

National Head Lice (Pediculosis) Prevention Month

September, 2018

Photo courtesy of the CDC

International Infection Prevention Week

October 14-20, 2018
"Infection Prevention: Be Wise Sanitize!"

World Polio Day

October 24, 2018

Table 1: Communicable Disease Surveillance, Incidence by Region and Time Period, May-June, 2018

DISEASE		HEALTH REGION 1	2	3	4	5	6	7	8	9	TIME PERIOD May-Jun 2018	May-Jun 2017	Jan-Dec Cum 2018	Jan-Dec Cum 2017	Jan-Dec % Chg*
Vaccine-preventable															
Hepatitis B Acute	Cases[4]	1	0	1	1	0	0	1	1	1	6	18	20	49	-59.2
	Rate[1]	0.1	0	0.3	0.2	0	0	0.2	0.3	0.3	0.1	0.4	0.5	1.1	NA*
Measles (Rubeola)	Cases[5]	1	0	0	0	0	0	0	0	0	1	0	2	0	NA*
Mumps	Cases[5]	2	0	1	0	0	0	0	0	0	3	9	5	62	-91.9
Rubella	Cases[4]	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Pertussis	Cases[5]	6	0	1	5	0	0	0	2	8	22	16	66	56	NA*
Sexually-transmitted															
HIV/AIDS	Cases[2]	57	52	8	22	6	17	19	8	15	204	185	611	553	10.5
	Rate[1]	6.3	7.6	2.0	3.6	2.0	5.6	3.5	2.3	2.6	4.4	4.0	13.0	11.8	NA*
Chlamydia	Cases[1,3]	1,422	887	507	639	292	339	801	518	477	5,897	6,032	17,268	18,271	-5.5
	Rate[1]	157.7	129.4	126.3	105.0	96.2	111.3	147.8	147.0	81.7	125.9	128.8	368.6	390.0	NA*
Gonorrhea	Cases[1,3]	536	269	152	194	92	139	302	188	144	2,021	2,088	5,499	6,071	-9.4
	Rate[1]	59.4	39.2	37.9	31.9	30.3	45.6	55.7	53.4	24.7	43.1	44.6	117.4	129.6	NA*
Syphilis (P&S)	Cases[1,3]	22	15	1	2	1	13	8	7	1	70	143	243	377	-35.5
	Rate[1]	2.4	2.2	0.2	0.3	0.3	4.3	1.5	2.0	0.2	1.5	3.1	5.2	8.0	NA*
Enteric															
Campylobacter	Cases[5]	6	19	4	71	11	6	9	4	10	140	172	353	412	-14.3
Hepatitis A	Cases[4]	0	0	0	1	0	0	0	0	1	2	1	4	5	NA*
	Rate[1]	0	0	0	0.2	0	0	0	0	0.3	0	0	0.1	0.1	NA*
Salmonella	Cases[5]	27	23	11	37	27	14	15	13	17	184	229	386	449	-14.0
	Rate[1]	2.6	4.0	2.9	7.2	10.1	4.6	3.0	3.7	4.4	4.3	5.3	8.9	10.4	NA*
Shigella	Cases[5]	5	5	1	7	19	1	1	2	2	43	48	104	135	-23.0
	Rate[1]	0.5	0.9	0.3	1.4	7.1	0.3	0.2	0.6	0.5	1.0	1.1	2.4	3.1	NA*
Vibrio, Cholera	Cases[4]	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Vibrio, Other	Cases[5]	3	8	3	0	3	0	0	0	7	24	14	47	40	17.5
Other															
H. influenzae (invasive) [5]		1	2	1	1	0	1	2	1	0	9	13	46	36	27.8
N. Meningitidis (invasive) [5]		0	0	0	0	0	0	0	0	0	0	0	0	3	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.

[4] = Confirmed cases

[5] = Confirmed and Probable cases

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

Figure: Department of Health Regional Map

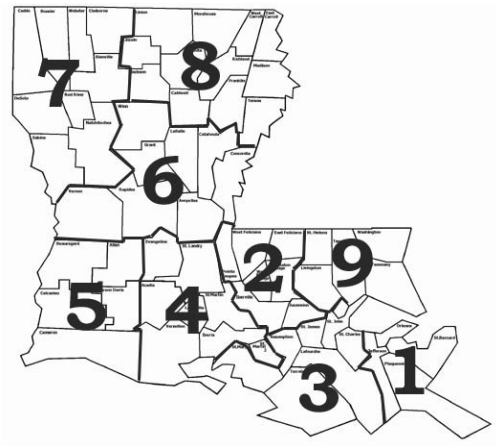

Table 2: Diseases of Low Frequency, January-December, 2018

Disease	Total to Date
Legionellosis	13
Lyme Disease	3
Malaria	5
Rabies, animal	1
Varicella	56

Table 3: Animal Rabies, May-June, 2018

Parish	No. Cases	Species
Rapides	1	Bat

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.