Louisiana Morbidity Report

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July - August, 2016 **Volume 27, Number 4**

Immunization Schedule Louisiana, 2016 Through 2017

Frank J. Welch, MD

The school year is fast approaching, but will your patients be ready? Besides shopping for supplies, a back-to-school checklist should include making sure children are up-to-date on their vaccines and have a current shot record The Louisiana Department of Health wants you to remind parents that it's important, and it's the law.

• State law requires that children four years-old and older who are entering kindergarten, pre-kindergarten, daycare or Head Start programs must have received 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) and a booster dose of diphtheria tetanus acellular pertussis vaccine (DTaP).

• Children who are 11 years-old or are entering the sixth grade must have proof of all age-appropriate immunizations, including meningococcal (MCV4), tetenus, and diphtheria (Td/Tdap) vaccines.

• Students entering a school of higher learning must show proof of two doses of MMR, one dose in the last 10 years of Td/Tdap, and two doses of (MCV4) vaccine (one dose of MCV4 if first dose was given on or after the age of 16 years).

The 2016-2017 Louisiana State Immunization Schedule can be found within the Louisiana Immunization Network for Kids Statewide (LINKS) Web page in the Immunization Registry Document Center at: *https://linksweb.oph.dhh.louisiana.gov/linksweb/LINKS_DCNTR.html*. This includes pediatric, adolescent, catch-up schedules, as well as Louisiana school entry requirements.

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Inside

Tracking Climate Change Indicators: Louisiana, 2016

Michelle Lackovic, MPH; Anna Reilly, PhD MPH

Southeast Louisiana is one of the most vulnerable locations in the developed world to climate change. The impacts of climate change under all assessed emission scenarios include more frequent and intense heat waves, more extreme precipitation events, and sea level rise.

Severe consequences have already been observed: in January 2016, Isle de Jean Charles in Terrebonne parish was the first United States community to receive federal tax dollars for resettlement due to climate change. The island has been the historical homeland and burial ground of the state-recognized tribe of the Isle de Jean Charles Band of Biloxi-Chitimacha-Choctaw Indians. Since 1955, the island has lost about 98% of its land due to saltwater intrusion, subsidence, and sea level rise.

Public health plays an important role in preventing and preparing for climate change by tracking population health impacts related to climate change, advancing adaptation and prevention actions, and promoting mitigation activities to reduce human actions that contribute to climate change. Staff from the Department of Health's Section of Environmental Epidemiology and Toxicology (SEET) are tracking climate change indicators developed and recommended by the Council of State and Territorial Epidemiologists' Climate Change Subcommittee. A recently released SEET report includes a summary description of select indicators plus data for the most recent years available, as well as historical data for the past 25 years. One of these indicators, temperature change, is the focus of this article.

The temperature indicator for climate change in Louisiana tracks daily temperature data collected by the National Oceanic and Atmospheric Administration via weather monitoring stations located in each of the state's nine climate divisions. Parishes within each climate division share nearly homogenous characteristics regarding temperature, rainfall, and humidity. Data for the summer season (June 21st to September 22nd) from each climate division were analyzed for the years 1990 to 2014.

The Northwest, North Central, West Central, and Central climate regions of the state all had, on average, 30 days or more per year where temperatures hit 95°F or higher. The Northwest was the hottest with 42 days. The three southern climate divisions had 20 or fewer days of greater than or equal to 95°F temperatures. The Southeast had the fewest days of temperatures greater than or equal to 95°F with 15 days (Figure 1).

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Pesticide Surveillance Louisiana, 2006-2014

Kathleen Aubin, MSPH

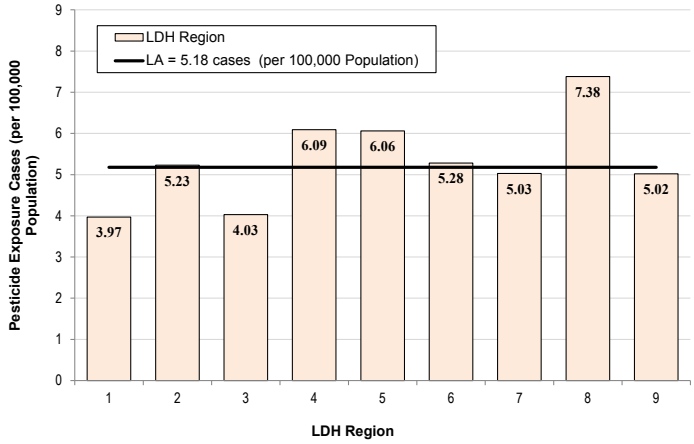
The Louisiana Department of Health's (LDH) Office of Public Health Section of Environmental Epidemiology and Toxicology's (SEET) Pesticide Surveillance Program investigates and tracks pesticide exposures occurring throughout the state. Reported cases of possible pesticide exposure are primarily received from the Louisiana Department of Agriculture and Forestry and the Louisiana Poison Center.

Information collected during a pesticide exposure investigation includes demographic data, circumstance and route of exposure, pesticide product information, type of application, location of pesticide application, medical signs and symptoms, biological and environmental monitoring information (e.g., results of cholinesterase and swab samples), severity of health effects and healthcare utilization.

The database, data coding guides, and case classification and severity criteria used by the SEET Program were developed by the Centers for Disease Control and Prevention's National Institute for Occupational Safety and Health. The Pesticide Surveillance Program recently released *Summary of Pesticide Surveillance Data: Louisiana, 2006-2014*, which provides descriptive statistics of aggregate pesticide exposure case data. It can be found at *http://new.dhh.louisiana.gov/assets/oph/Center-EH/envepi/Pest/Documents/Summary_Review_of_Pesticide_Surveillance_Data_6-3-2016.pdf*.

Between 2006 and 2014, 2,129 individuals (cases) reported health effects associated with pesticide exposure. The median number of cases per year was 248, ranging from 136 (2011) to 421 (2007). The SEET Program discontinued tracking non-occupational disinfectant exposures in 2011 which resulted in fewer cases in the 2011 to 2014 time period. During the time period evaluated, Madison, Richland, and Franklin Parishes, in the northeastern part of the state (LDH Region 8*) had the highest average annual rate of pesticide exposure cases; all parishes in the state had at least one reported exposure (Figure 1).

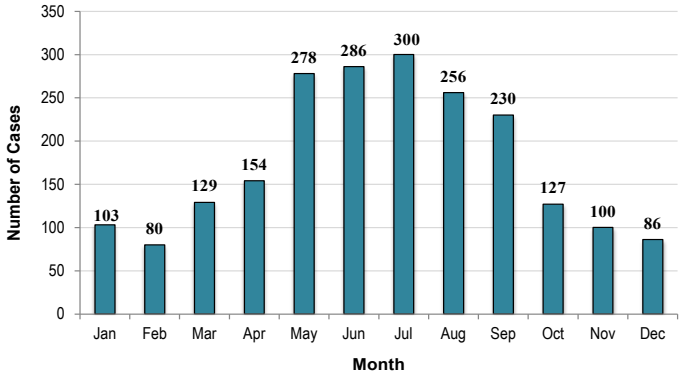
Figure 1: Average Annual Exposure Case Rate by LDH Region
Louisiana, 2006-2014



* Map of Regions on Page 7

Overall there were more male cases (51%) than female cases (49%). Thirty-four percent of cases (N=716) were between 20 and 39 years-old. Three hundred and forty-seven cases (16%) were younger than 10 years-old. Three hundred and three cases (14.1%) were working when the reported pesticide exposure occurred. Eighty-nine percent of cases had mild health effects (low severity). There were no deaths. The most common type of symptom reported was respiratory (27%), followed by gastrointestinal (18%). Forty percent of the reported pesticide exposure cases sought medical care. Approximately two-thirds of the reported exposures (N=1403) occurred during spring or summer months (Figure 2).

Figure 2: Number of Cases by Month - Louisiana, 2006-2014



The circumstance of exposure for the majority of cases was when the individual was exposed to an application of pesticide material released at the target site and not carried from the target site by the air (51%, N=1085). Exposure to the material can be by direct projection, ricochet, or blow back by the wind onto the applicator during the application process. The interior or exterior of a building was the intended point of application for 41% (875 cases) of the pesticide cases.

The most common site of an exposure event was a single family home (82%, or 1,755 cases). Applications via manual place-

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Louisiana Service Worker Wellness Report: Results from the Behavioral Risk Factor Surveillance System, 2013-2014

Jocelyn Lewis, PhD; Vanessa Paul, MPH; Laurie Freyder, MPH; Michelle Lackovic, MPH

The Behavioral Risk Factor Surveillance System (BRFSS) is a cross-sectional annual health-related telephone survey of civilian, non-institutionalized state residents aged 18 years and older. It is coordinated by the Centers for Disease Control and Prevention and conducted by all US states, Washington D.C. and several US territories. The BRFSS uses a multistage sampling design to select a representative sample of the adult population in each state, allowing for state-to-state and national comparisons.

Beginning in 2013, Louisiana added an optional industry and occupation module to collect information from employed respondents about their "type of business/industry" and the "type of work/occupation." Verbatim responses were collected, coded by the National Institute of Occupational Safety and Health certified coders into three-digit census occupation codes and then aggregated into broader occupational categories. Using a combined 2013/2014 data set, population-based estimates on the health and well-being of service workers in Louisiana were calculated. For Louisiana and many other states, the BRFSS is the only available data source of timely and accurate data on health-related behaviors.

Service workers represent a broadly defined group that includes: healthcare support, protective service, food service, cleaning and maintenance and personal care and service occupations. Together, these workers make up about 17 percent of Louisiana's workforce, with food service workers making up almost one-third of all service workers, followed by personal care and service workers at 21 percent. Although there is variation among service occupations, many of the jobs are held by women and minorities and involve shift work, low wages and minimum job security.

These jobs, especially service jobs that pay below $20 per hour and require only a high school education or less, are predicted to grow far more quickly than higher-wage jobs over the next decade. Between 2010 and 2014, the number of food service workers increased approximately 12 percent. The other service occupations also experienced growth during this time period, excluding protective service workers.

Methods

Prevalence estimates for 19 survey responses were calculated to compare Louisiana service workers with all other workers. The questions were grouped into six main categories: health care access; health status; chronic health conditions; housing and food insecurity; risk factors and behaviors and immunization. The BRFSS criteria for publicly reporting data results are that: 1) each cell size must have a count of at least 50 and 2) the coefficient of variation (CV) of the prevalent estimate must be less than 0.30 to indicate stability. Unreliable estimates are not included in the report. SAS® 9.3 was used for all data analyses, and Microsoft® Excel was used to create all figures and tables. Rao-Scott chi-squared tests were calculated for all prevalence estimates to determine differences between occupation groups. Statistical significance for all tests was set at $p < 0.05$.

Results

Table 1 shows the annual average distribution of 2013 and 2014 LA BRFSS Service worker respondents grouped by 2010 US Census Bureau Occupation Codes compared to the Bureau of Labor Statistics' Current Population Survey (CPS). The CPS is a monthly survey of approximately 60,000 randomly sampled US households representative of the civilian non-institutional population. It includes demographic and labor force and employment data for each household member at least 15 years-old. The five service workers' occupational categories were combined to create a service group, and all other occupation groups were combined to form the all other workers group for comparison.

Table 1: Average Workforce Distribution of BRFSS Service Worker Respondents by Major Occupation Group - Louisiana, 2013 and 2014

Occupation Group/Service	Example Occupations	Workforce Distribution (percent)	
		BRFSS	Current Population Survey
Healthcare Support	massage therapist, dental assistant, phlebotomist, pharmacy aides	3.1	2.5
Protective Service	detective, fish and game warden, firefighter, police officer, correctional officer, security guard	3.6	2.5
Food Prep and Serving Related	chef, bartender, dishwasher, counter attendant, host and hostess, waiter and waitress	6.7	5.5
Building and Grounds Cleaning and Maintenance	janitor, housekeeper, pest control worker, groundskeeper, lawn service worker	4.3	3.1
Personal Care and Service	barber, animal trainer, hairdresser, usher, mortician, baggage porter, tour guide, childcare attendant	3.8	3.7

Table 2 shows the distribution of socio-demographic characteristics among Louisiana service workers and all other workers combined for Louisiana's BRFSS 2013 and 2014 data. Service workers in Louisiana were more likely to be female, younger than 45 years-old, African-American, not have a high school education, and have an annual income less than $50,000 in comparison with other workers.

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(Pesticide ... continued from page 2)

ment accounted for 36%, or 767, of the cases. The most common pesticide type involved in reported incidents was insecticides (47%, 1,018 cases).

For more information on LDH's Pesticide Surveillance Program, visit the website at http://dhh.louisiana.gov/index.cfm/page/836, call 1-888-293-7020 (toll free), or send an email to oph.seetweb@la.gov.

(Louisiana Service Workers ... continued from page 3)

Table 2: Distribution of Demographic Data Among Service Workers and All Other Workers - BRFSS - Louisiana, 2013 and 2014

Characteristic	Service Occupation Group (N=913)	All Other Workers (N=4,270)
	%	%
Sex		
Male	41.1	56.5
Female	58.9	43.5
Age Group (years)		
18-44	68.4	54.9
45-54	17.9	23.8
55-64	10.6	15.7
≥65	3.2	5.6
Race/ethnicity		
White Non-Hispanic	47.0	66.5
Black Non-Hispanic	44.1	26.3
Hispanic	5.7	4.0
Other	3.2	3.3
Education		
Some high school	21.4	11.6
High School graduate	41.9	29.8
Some college	28.4	29.8
College Graduate	8.2	28.8
Household Income		
Less than $50,000	77.3	44.1
≥$50,000	22.7	55.9

Table 3 shows that service workers reported significantly greater prevalences of poor health, chronic health conditions, food and housing insecurity, and risk behaviors than other workers.

Table 3: Significant Prevalence Estimates - BRFSS - Louisiana, 2013 and 2014

BRFSS Variable	Significant Prevalence Estimates (%)		
	Service Workers	All Other Workers	p-value
Health Care Access			
No Health care coverage	38.5	18.7	<0.0001
Unable to see doctor due to medical costs	29.5	14.9	<0.0001
Health Status			
Poor total health (physical and/or mental health poor 11-30 days)	20.9	14.9	0.003
Chronic Health Conditions			
Current Asthma	7.4	5.0	0.04
Chronic Obstructive Pulmonary Disease	6.0	3.5	0.008
Depressive Disorder	17.7	13.2	0.01
Diabetes	8.4	6.3	0.01
Insecurities			
Food insecurity	34.2	19.2	0.0001
Housing/Shelter insecurity	17.0	14.3	0.007
Risk Factors and Behaviors			
Current smoking	32.1	23.8	0.0004

Conclusion

This report provides critical information on the health and well-being of service workers in Louisiana that can be used by policymakers, community leaders, and business leaders to better understand the economic hardships, chronic health conditions, and other quality of life issues faced by this growing occupational sector. This information, in turn, can better inform policy and legislation and health intervention and prevention programs.

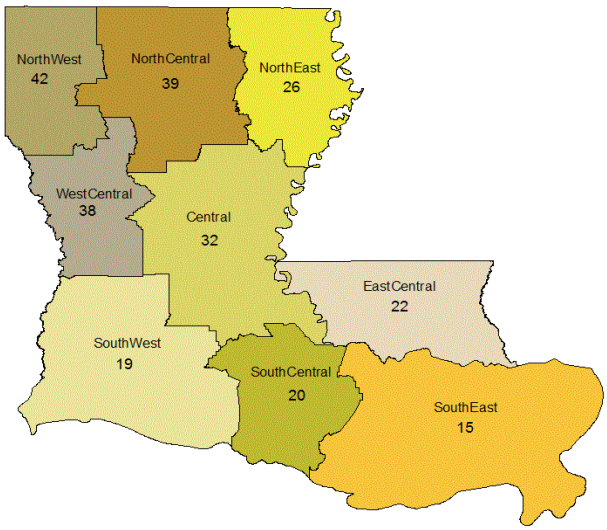
Data in this report pre-date Medicaid expansion which, as pointed out in the recently released Louisiana State Health Assessment and Improvement plan, is the single greatest action our state can take to ensure that every working Louisianan has access to health care.

Lastly, for the purposes of presenting data that meet minimum reporting standards, data for the five service occupations were aggregated, which may have resulted in masking occupation-specific issues. As additional years of data are received, a similar analysis can be done for each of the five service sectors. This analysis sets the important foundation for that work.

The full Louisiana Service Worker BRFSS Report can be accessed at *http://new.dhh.louisiana.gov/assets/oph/Center-EH/envepi/occ_health/Documents/LA_Service_Worker_Wellness_Report_BRFSS_2016_FINAL.pdf*. For more information, please contact Dr. Jocelyn Lewis at *Jocelyn.lewis@la.gov*.

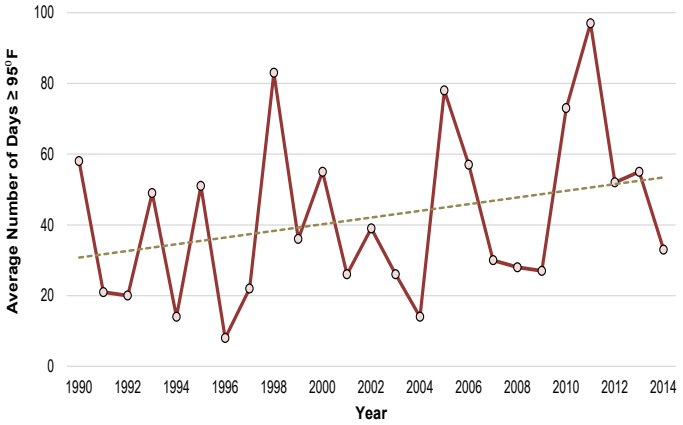
(Tracking Climate ... continued from page 1)

Figure 1: Annual Average Number of Days ≥ 95°F by Climate Division Louisiana, 1990-2014



Focusing on the Northwest climate division, in 2011 there were 97 days where the temperature was greater than or equal to 95°F, higher than any other area of the state. There was a non-significant increasing trend in the number of days greater than or equal to 95°F (Figure 2).

Figure 2: Number of Days ≥ 95°F - Northwest Louisiana, 2009-2014



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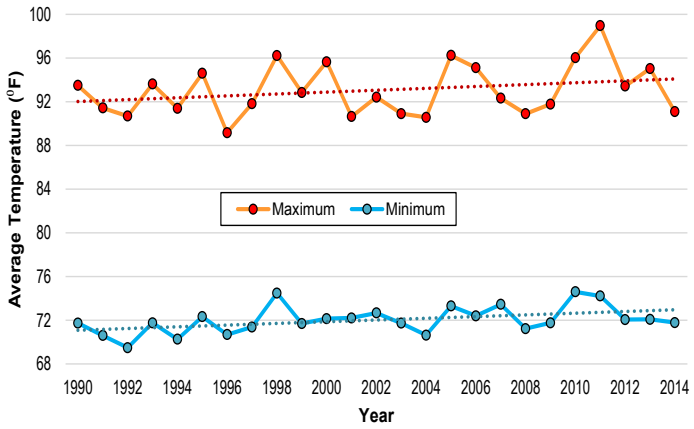
Observation of daily mean temperature alone is not sufficient for monitoring climate change because it can be affected by changes in either the daily maximum or minimum temperatures, or both. Therefore, daily maximum and minimum temperatures, as well as diurnal temperature range (DTR), the difference between daily maximum and minimum temperatures, are also considered. In most areas of the globe, increased surface air temperatures have been associated with decreasing DTR, due more to increasing minimum temperatures than to increasing maximum temperatures.

Figures 3 and 4 display the average daily maximum and average minimum temperatures, as well as the average DTRs for the years 1990 to 2014, respectively. Trend analysis of temperature data over time was performed using the Mann-Kendall test for trend.

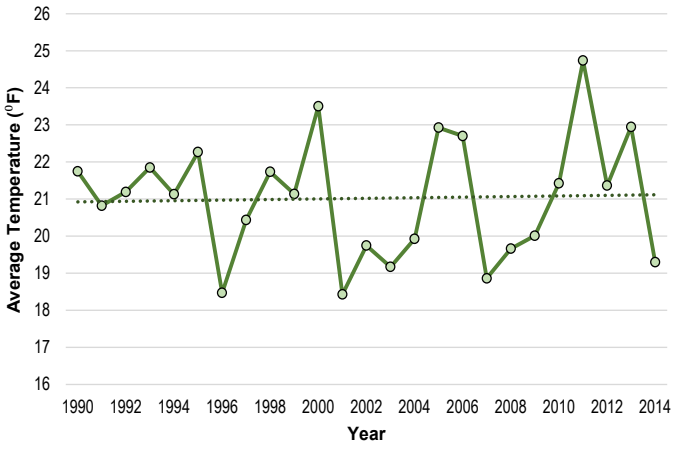
There was a upward trend in both the average daily maximum and minimum summer temperatures, but the increasing trend was only significant for the average daily minimum summer temperatures (τ=0.33, p=0.03), (Figure 3).

Figure 3. Average Summer Temperatures
Northwest Louisiana, 1990-2014



There was a non-significant downward trend in the average DTR (Figure 4).

Figure 4: Average Summer Diurnal Temperature Ranges - Northwest Louisiana, 1990-2014



Climate change is predicted to increase the number of extremely hot days, and decrease the number of extremely cold days. In the Southeastern United States, average annual temperatures have increased by about 2°F since 1970 with the greatest warming occurring during the summer. By the end of the century, if emissions continue unchecked, temperatures are projected to increase by 4°F to 8°F in this region with more predicted days over 95°F.

The effects of warmer temperatures are of particular concern in Louisiana because the state experiences some of the highest average summer temperatures in the nation. These periods of extreme heat are further compounded by high humidity which worsens the impact of heat by impairing the body's ability to cool by evaporation. Heat poses significant health risks to individuals who are unable to maintain a core body temperature around 98.6°F, the optimum level for physiologic functioning. While the body responds rapidly to treatment for heat cramps and exhaustion, if left untreated, heat exhaustion can rapidly progress to heat stroke which occurs when the body's ability to thermo-regulate fails, resulting in an unrestrained rise of core temperatures to critical levels. This can result in death if treatment is not immediate.

Extreme heat can also exacerbate chronic health conditions. The most vulnerable are the young, elderly, people with chronic health conditions such as cardiovascular disease and diabetes, athletes, and workers employed in outdoor occupations that require physical activity such as construction, agriculture, sanitation, and workers in a number of manufacturing and oil and gas settings.

Other negative effects of higher temperatures on human and environmental health include: the spread of vector-borne diseases beyond the range currently observed as mosquitoes like those that carry the West Nile virus survive longer throughout the year and travel farther; an increase in food- and water-borne infectious diseases as warmer water temperatures foster growth of *Vibrio* bacteria and algal toxins in water and seafood at times of the year, or in places not typically seen; more food poisonings as *Salmonella* and other bacteria grow best in warm environments; and longer pollen seasons resulting in higher incidences of allergic disorders.

The full report -*Indicators of Climate Change|Louisiana* - can be accessed at http://dhh.louisiana.gov/index.cfm/page/885.

Please contact Michelle Lackovic at michelle.lackovic@la.gov for more information about this report, or if you are interested in participating in a meeting to further collaborative projects on climate change and public health issues.

Rapid Response Team/Field Epidemiology Workshop

Bogalusa - October 12, 2016

Sponsored by the Department of Health's Office of Public Health, Infectious Disease Epidemiology Section. This is a one-day workshop targeted towards sanitarians, public health nurses, infection control professionals, disease surveillance specialists, teachers, epidemiologists, health care providers, and other public health care professionals interested in epidemiological principles and outbreak investigations.

This workshop is free to attend and open to the public. Registrations are necessary to assure both seating availability and handouts. Sanitarian and nurse education credits are available.

Please go to dhh.louisiana.gov/index.cfm/page/1816 for a registration form and more information.

Physicians, Infectious Disease and Laboratory Personnel ...

Face masks should be worn when taking samples from the upper respiratory tract with swabs (throat swab or naso pharyngeal swabs). These kind of swabs are taken to diagnose specific pathogens by nucleic acid testing (influenza strains, respiratory viral panels, specific bacteria).

Since swabs are taken because a pathogen is suspected, it would make sense that the health care provider that is a few inches from the upper respiratory tract of the patient, should be wearing at least a face mask.

Evaluation of, and prophylaxis for laboratory exposure should be initiated upon a diagnosis of any *Brucella* organism. Identification of the specific organism (genus and species), is not required.

Even if a PCR test is done, samples need to be sent to the State Laboratory for confirmation of STEC and *Vibrio* cases.

Since swabs are taken because a pathogen is suspected, it would make sense that the health care provider that is a few inches from the upper respiratory tract of the patient, should be wearing at least a face mask.

Figure: Parishes With Established Populations of *Aedes aegypti* Mosquitoes - Louisiana, 2016*

** Note: Adult Ae. aegypti mosquitoes may occasionally be identified in other parishes, and have been in the last three years. However, established populations have not been identified in those parishes other than designated above.*

(Immunization ... continued from page 1)

Vaccines have a proven safety record. They are safe and effective at preventing illness and death from many infectious diseases. Having kids vaccinated keeps them healthy and in school and protects other children and even other family members from getting sick. The low cost and high efficacy of vaccination ensure that every dollar spent on vaccination is repaid many times over because of reduced hospital costs, in addition to lives that remain productive.

Since not every child is due for a vaccine, please encourage parents to review immunization records. Parents are able to get official state immunization records with an online MyIR™ account at www.LA.myir.net. A service of the Louisiana Department of Health, MyIR™ would allow the viewing, printing and storing of copies of a family's immunization records. They can also contact their physician, a Parish Health Unit, or a Federally Qualified Health Center to see if their child is up-to-date, and then schedule an appointment to get their child vaccinated or get a copy of their child's shot record. If a provider is unable to locate a child's record, or utilize the LINKS database, contact the Louisiana Immunization Program at (504) 838-5300 in order to get a new record.

The Louisiana Department of Health strives to protect and promote health statewide and to ensure access to medical, preventive and rehabilitative services for all state citizens.

Announcements

August - National Immunization Awareness Month

September - National Food Safety Education Month

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

Annual Reports: Hantavirus; Introduction; Leptospirosis; Listeria; Lyme; Measles (Rubeola); Mumps; Pertussis; Poliomyelitis; Psittacosis; Rubella; Several Year Comparison 2014-2016

Arboviral: Countries and Territories with Active Zika Virus Transmission (CDC); Yellow Book - Zika (CDC); Zika and Animals (CDC); Zika Virus Information (CDC)

Epidemiology Manual: Zika CDC Key Messages; Zika Shipping Instructions- Non-Pregnant; Zika Shipping Instructions- Pregnant

Hepatitis: Epidemiolgic Profile of Hepatitis C Virus Infection in Louisiana-2015

Influenza: Monthly Report

LEEDS: Emergency Department Surveillance for Specified Syndromes

Main IDEpi Page: Contacts, Introduction

Reportable Disease Surveillance: Disease Case Report Form

Table: Communicable Disease Surveillance, Incidence by Region and Time Period, May-June, 2016

DISEASE		HEALTH REGION 1	2	3	4	5	6	7	8	9	TIME PERIOD May-Jun 2016	May-Jun 2015	Jan-Dec Cum 2016	Jan-Dec Cum 2015	Jan-Dec % Chg*
Vaccine-preventable															
Hepatitis B	Cases	0	0	0	1	0	1	2	0	3	7	20	26	43	-39.5
	Rate[1]	0	0	0	0.2	0	0.3	0.4	0.0	0.8	0.2	0.5	0.6	1.0	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	0	0	1	0	2	2	0	0	6	13	23	27	NA*
Sexually-transmitted															
HIV/AIDS	Cases[2]	80	40	9	17	9	13	21	12	22	223	211	674	571	18.0
	Rate[1]	9.6	6.0	2.2	2.9	3.1	4.2	3.9	3.4	4.1	4.9	4.7	14.9	12.6	NA*
Chlamydia	Cases[1,3]	1,219	619	406	606	210	339	556	441	413	4,814	5,073	15,058	15,102	-0.3
	Rate[1]	137.3	91.1	100.1	100.6	70.6	109.9	101.6	123.9	73.0	103.5	109.1	323.9	324.8	NA*
Gonorrhea	Cases[1,3]	458	262	122	208	57	101	154	164	145	1,674	1,588	5,333	4,696	13.6
	Rate[1]	51.6	38.6	30.1	34.5	19.2	32.8	28.1	46.1	25.6	36.0	34.2	114.7	101.1	NA*
Syphilis (P&S)	Cases[1,3]	41	16	7	10	4	5	26	10	3	122	137	316	300	5.3
	Rate[1]	4.6	2.4	1.7	1.7	1.3	1.6	4.7	2.8	0.5	2.6	2.9	6.8	6.5	NA*
Enteric															
Campylobacter	Cases	2	7	12	15	0	5	7	5	6	59	49	120	109	10.1
Hepatitis A	Cases	0	3	0	0	0	0	0	0	0	3	1	9	2	350.0
	Rate[1]	0	0.5	0	0	0	0	0	0	0	0.1	0	0.2	0	NA*
Salmonella	Cases	30	31	28	49	29	22	13	20	42	264	276	520	476	9.2
	Rate[1]	2.9	5.5	7.4	9.5	10.8	7.2	2.6	5.7	10.9	6.1	6.4	12.1	11.0	NA*
Shigella	Cases	9	15	2	22	0	1	7	4	2	62	37	187	79	136.7
	Rate[1]	0.9	2.6	0.5	4.3	0	0.3	1.4	1.1	0.5	1.4	0.9	4.3	1.8	NA*
Vibrio, cholera	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Vibrio, other	Cases	1	1	3	3	0	0	0	0	4	12	15	20	32	37.5
Other															
H. influenzae (other)		2	0	3	1	0	0	1	0	1	8	9	31	34	NA*
N. Meningitidis		0	0	0	1	0	0	0	0	0	1	2	2	4	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.

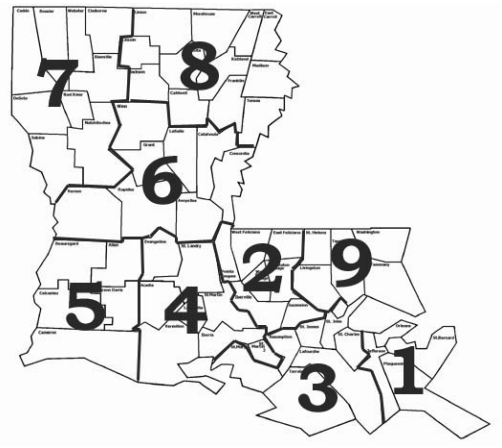
Table 2. Diseases of Low Frequency, January-December, 2016

Disease	Total to Date
Legionellosis	9
Lyme Disease	1
Malaria	7
Rabies, animal	1
Varicella	39

Table 3. Animal Rabies, May-June, 2016

Parish	No. Cases	Species
LaSalle	1	Bat

Figure: Louisiana Department of Health 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.