Louisiana Morbidity Report

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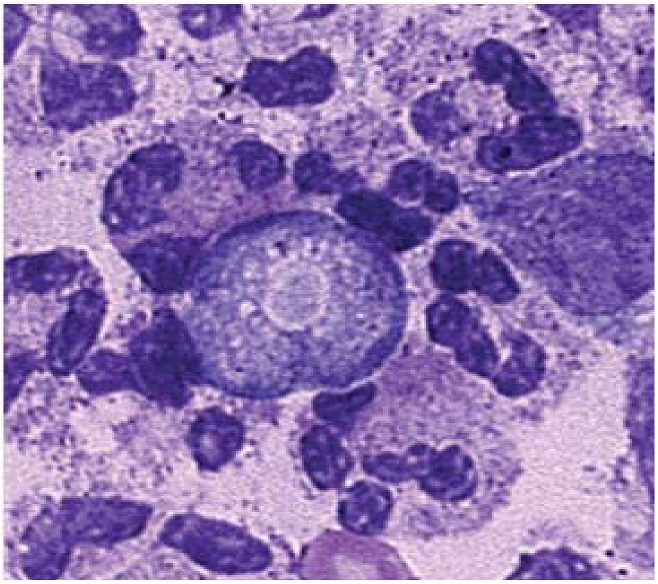
A Primary Amebic Meningoencephalitis (PAM) Fatality Louisiana, 2011

A previously healthy 28-year-old resident in South Louisiana complained of a headache in addition to neck and back pain and seemed confused. Two days later, he exhibited a fever of 101°F and became very nonsensical and agitated. The patient's cerebrospinal fluids (CSF) showed elevated white blood cell (3400), low glucose (8) and high protein (354) counts with a negative Gram stain. Twenty-four hours after presentation in the hospital's emergency department, the patient showed clinical and radiographic evidence of brain herniation; the patient died shortly thereafter. Real time polymerase chain reaction (PCR), and culture demonstrated the presence of an amoeba, *Naegleria fowleri*.

Naegleria are genera of free-living amebae that can cause meningitis and/or encephalitis in humans due to the capability of these organisms to migrate to the brain via the olfactory nerves. Several of these organisms have been identified as *Naegleria* spp., however only one, *Naegleria fowleri*, has been found to be pathogenic to humans. *N. fowleri* exists in three different stages: cysts, trophozoites and flagellated forms. Trophozoites cause PAM. *N. fowleri* trophozoites are found in CSF and tissue, while flagellated forms are occasionally found in CSF (Figure). Cysts are not seen in the brain tissue.

Figure: Trophozoite of *N. fowleri* in CSF, stained with hematoxylin and eosin (H&E). Image courtesy of the CDC.



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The incubation period for Naegleria infection is one to 14 days. Symptoms often start with a change in taste and smell; headache, fever, nausea, vomiting and stiff neck are also often observed. After these initial symptoms, the clinical picture progresses to confusion, hallucinations, lack of attention, ataxia and seizures. Death is likely to occur seven to 14 days after the presentation of initial symptoms.

N. fowleri is distributed worldwide and can be found in fresh water, soil, thermal discharges of power plants, heated swimming pools, hydrotherapy and medicinal pools, aquaria and sewage systems. Water temperature, pH, total coliforms and the level of organic compounds present are linked to the presence of Naegleria.

Interestingly, a recent review showed that human pathogenic ameba (such as Naegleria and Acanthamoeba), and other non-human pathogenic free living amebae are consistently detected in drinking water systems around the world; the average detection rate was 45%, depending on the type of water system examined.

There are only sporadic cases reported in the United States. *N. fowleri* rarely causes disease; however, when diagnosed, the disease is

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Sexually Transmitted Disease Exposure-Via the Internet? Louisiana, 2009-2011

Julie Holden, MD; Louis Trachtman, MD, MPH; Darin Jackson; DeAnn Gruber, PhD, LCSW; Amy Busby

Introduction:

Partner Services is a U.S. Centers for Disease Control and Prevention (CDC)-advocated service provided by the Department of Health and Hospitals (DHH), Louisiana Office of Public Health (LA OPH) that functions to identify patients diagnosed with HIV, syphilis, gonorrhea and chlamydial infections, and notify their partners of their possible exposure. Partners can then be referred for medical and preventive services including sexually transmitted disease (STD) testing, prevention counseling and treatment.

Traditionally, this has been accomplished through an interview with the newly diagnosed patient, known as the index patient, to identify partners who are then contacted by the index patient or a public health official and notified about possible STD exposure. When contacts are notified by a public health official, the index patient's identity is not disclosed. With the increased use of the Internet for finding sexual partners, some index patients only have Internet contact information (such as an email address, social networking profile or chat room pseudonym) regarding their partners. Internet Partner Services (IPS) has evolved to notify this subset of exposed high-risk individuals through the use of Internet-based confidential communication and also to notify partners for which usual contact means have failed. Anticipated outcomes for IPS include decreased transmission and incidence of HIV/STD infection due to identification and referral of high-risk individuals who are otherwise unreachable via traditional methods for prevention services, disease screening, and medical care.

Internet Partner Services Methods:

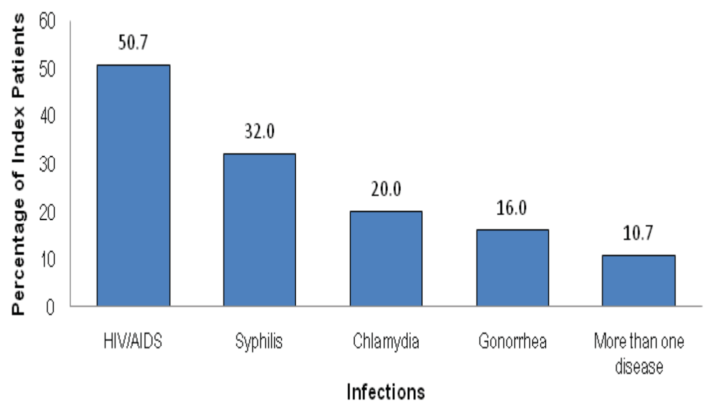
When a public health Disease Intervention Specialist (DIS) interviews an index patient and finds that he/she only has Internet-based contact information for a partner, the index patient is first encouraged to contact the partner at the time of the interview. Otherwise, the original DIS refers the case to a centralized IPS DIS. Alternatively, cases may be referred to the IPS DIS when usual Partner Services contact methods, such as calling the partner or visiting the partner's home, have failed. The IPS DIS attempts to contact the partner by sending a series of emails or instant messages via chat rooms conveying that a health department representative is trying to contact him or her. After an initial message is sent, a second message is sent if no response is received within five days, and a third will be sent after five additional days. However, if it can be determined that the individual has not accessed his or her profile since the initial attempt, subsequent messages are not sent. If these attempts are unsuccessful, additional review of the case may be undertaken. Following three attempts and/or approximately 21 days after the initial attempted contact, further attempts are not made and the case is closed. When a partner is successfully contacted, exposure counseling and referral to medical services is initiated.

The following data is collected by IPS: index patient's infection status and diagnosis, Louisiana public health region of index patient's case origin, date request for IPS received, date attempt(s) made, date case closed, case disposition (indicating whether partner is successfully contacted and type of response), Internet contact information or identifiers for a partner (screen name, website, email address), as well as additional identifying characteristics regarding the partner, such as physical description and demographical information when available.

Data:

From December 28, 2009, when DHH started using IPS, to April 7, 2011, 84 partners were referred for IPS. Of these 84 contacts, 75 cases were officially closed at the time of this report (Figure 1).

Figure 1: Index Patient Disease Percentages - Louisiana, December 28, 2009-April 7, 2011



Sexual relationships were male-male sexual partnerships in 94.7% of cases and male-female partnerships in 5.3% of cases. Many different Internet venues were used for contacting possibly exposed partners, including all known to be used for social networking. Index patients with IPS requests were unevenly represented regionally* within Louisiana. The majority (66.7%) of IPS requests originated in Region 8 (Monroe), 16% originated in

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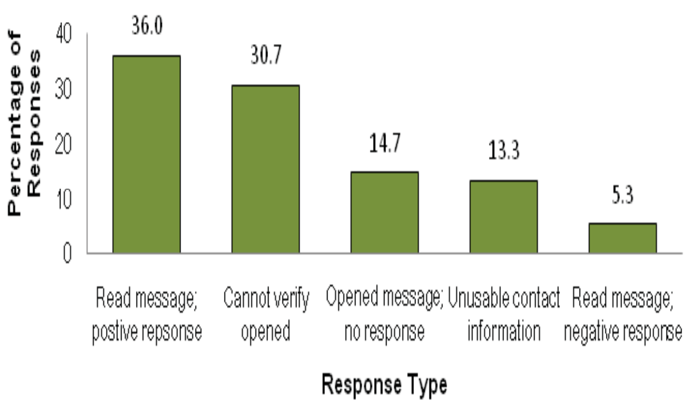
Region 2 (Baton Rouge), and even fewer originated in Region 1 (New Orleans), Region 4 (Lafayette), Region 5 (Lake Charles), Region 6 (Alexandria), and out of state. No IPS requests came from Region 3 (Houma), Region 7 (Shreveport), or Region 9 (Hammond/Slidell) (Table 1).

Table 1: Index Patient Case Origin - Louisiana, December 28, 2009-April 7, 2011

Region of Index Patient Case Origin	Number of Contacts Referred for IPS
1-New Orleans	3
2-Baton Rouge	12
3-Houma	0
4-Lafayette	1
5-Lake Charles	3
6-Alexandria	1
7-Shreveport	0
8-Monroe	50
9-Hammond/Slidell	0
Out of State	5
Total	**75**

Responses were varied. In 13.3% of cases, the internet-based contact information supplied by the index patient was unusable (for example, messages to email addresses that are returned to sender due to delivery failures or nonexistent social networking site profiles). In 30.7% of cases, messages were successfully sent, but due to the nature of many of the venues, it could not be determined whether the message had been opened. In 56% of all cases, the message sent by IPS was confirmed to have been opened. Of these, no response was obtained in 14.7% and 5.3% had negative responses (e.g. anger, disbelief, and/or refusal for further intervention). However, 36% of all cases resulted in a positive response, which was defined as the contact agreeing to follow-up with DIS, planning to have HIV/STD testing/treatment, or self-reporting that he/she was under medical care (Figure 2).

Figure 2: Percent of Response Type - Lousiana, December 28, 2009-April 7, 2011



A further analysis of positive responses shows that 46.4% (13 contacts) had been a partner of an HIV/AIDS index case and were referred for follow-up services or had self-reported having testing for HIV.

Comment:

The Internet has played an increasing role in the creation of sexual partnerships through the use of chat rooms and other social networking sites, some of which function solely for the location of potential anonymous sexual partners. Use of Internet for these purposes has been associated with high-risk behavior and the acquisition of STD/HIV infections, and has led to situations in which patients with newly diagnosed STD/HIV cases only having screen names or email addresses to contact prior sexual partners. There are inherent difficulties in using the Internet as a medium for contacting sexual contacts regarding high-risk sexual exposures. Concerns of confidentiality, problems locating individuals using limited information, and difficulty engendering source validity through a single message are only a few examples. Despite these difficulties, Internet identification of partners remains the only method available to contact some high-risk patients and is a successful method of locating partners in some instances.

Preliminary analysis of 75 cases over a period of approximately 16 months demonstrates that IPS has successfully contacted high-risk individuals regarding their exposures to HIV/STDs who otherwise would not have been contacted, with 27 individuals (36%) referred for follow-up services or self-reported to have received medical care. HIV/AIDS was the leading diagnosis for index patients both overall and for index patients whose partners responded positively to contact attempts, which underscores the importance of this measure.

Extensive data regarding response rates to Internet partner notification for HIV/STDs is lacking. Prior small studies and investigations using IPS in other states have shown variable response rates, ranging from 26% to 60%, which is comparable to results obtained from Louisiana IPS. In comparison for 2009, a total of 1,449 persons were referred for traditional HIV Partner Services in Louisiana and 669 were subsequently contacted, which is 46% of referrals contacted.

Index patients resulting in IPS requests were unevenly represented regionally with many regions having no referrals. This could correspond to differential regional HIV/STD rates, lack of information about IPS in some regions, or underutilization of IPS in some areas. Region 8 (Monroe) had the highest number of cases referred for IPS, which corresponds to cases obtained from a public-private screening center that targets gay and bisexual individuals. With increased awareness of IPS, it is expected that referral for IPS will increase.

Although IPS is a relatively new means of contacting high-risk individuals for HIV/STD screening and care, it has produced encouraging successes during its relatively short existence. Future goals of the program include enhanced education of DIS to increase collection of Internet contact information for index patients' partners and increased clinician awareness of IPS. Integration of IPS data into existing reportable STD databases and more detailed data collection regarding IPS cases will aim to improve program evaluation and focus future program efforts. Additionally, for any Partner Services program to achieve maximum impact, clinicians must assume responsibility to ensure that patients diagnosed with an STD or HIV are linked to appropriate services for counseling, prevention, and treatment. This goal can be facilitated by proper disease-reporting practices by clinicians and introduction of the concept of DIS and Partner Services to the patient at the time of

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* Map of regions on page 7

Varicella (Chickenpox) Survey Louisiana, 2010-2011

Melissa Brown, MPH

The Infectious Disease Epidemiology Section (IDES), Department of Health and Hospitals, Office of Public Health often receives positive test values for varicella antibody IgM tests through reference laboratory reporting. Test results transmitted from reference laboratories are reported without clinical information; therefore, follow-up with the test ordering physician is needed to determine if the case fits the Centers for Disease Control and Prevention (CDC) case definition. The CDC case definition of varicella is as follows:

Probable - A case that meets the clinical case definition is not laboratory-confirmed and is not epidemiologically linked to another probable, or confirmed case.

Confirmed - A case that is laboratory-confirmed, or that meets the clinical case definition and is epidemiologically linked to a confirmed, or probable case.

The CDC clinical case definition for varicella is defined as *an illness with acute onset of diffuse (generalized) papulovesicular rash without other apparent cause*. Although it is known that false positive varicella IgM results can be present in non-symptomatic individuals, IDES conducted a short telephone survey in order to determine if there is any correlation between positive IgM levels and the clinical symptoms of chicken pox.

From September 2010 to July 2011, 92 patients were reported by reference laboratories to be varicella IgM positive. Telephone numbers were available for 53% of these patients. A total of 17 patients were able to be contacted via telephone and agreed to provide information regarding their reasons for seeing the physician who ordered the varicella test (Table).

Table: Varicella Case Number and Reason for Physician Visit Louisiana - September, 2010-July, 2011

Reason for Seeing Physician	Number of Cases
Routine Physical (non-symptomatic)	12
Rash	2
Pregnancy	1
Shingles	1
Thyroid Testing	1

Of the two patients surveyed that presented to the physician with a rash, one was doctor-diagnosed with chicken pox. Also of note, the individual included in this survey with a doctor-diagnosed case of chickenpox was younger than 18 years of age.

For more information, please contact Ms. Brown at (504) 568-8318 or email to *melissa.brown2@la.gov*.

Wild Animals In Pools

Gary A. Balsamo, DVM, MPH&TM

Louisiana citizens are sometimes greatly surprised to find unwelcome critters swimming or bathing in swimming pools. Most people that experience such a shock are left with questions concerning residual health risks associated with a wild animal visitor.

Initially the primary concern is persuading the animal to leave. Of course, children and pets should be excluded from the area until the animal departs. Smaller wild animals are easily frightened away by making very loud noises, or by throwing rocks or sticks in the general direction of the animal with no need to actually strike the animal. Should a wild animal act aggressively and/or refuse to leave the area, or if the animal is a larger species, individuals should remain at a safe distance and call animal control agencies, wildlife officials or 911. (Members of the public should always avoid direct contact with a wild animal, or any of the animal's tissues or bodily fluids.)

Often wild animals are attracted to swimming pools due to the inadvertent availability of extensive food sources. Unsecured or unsealed pet foods and garbage can attract these animals. Pet foods and garbage should be kept in containers that cannot be tipped over.

People also attempt to lure wild animals near their home for aesthetic reasons or for entertainment purposes. It is important to remember that these animals are not pets and thus, may be a source of injury and transmission of zoonotic diseases, such as rabies and tularemia.

When wild animals are discovered in swimming pools, the question often arises as to what health risks may persist in the water. Organisms such as *Cryptosporidium* species and *Escherichia coli* have been transmitted to swimmers in pools through the inadvertent consumption of water contaminated with fecal matter or vomitus from both humans and animals. Therefore contamination of swimming pools with these substances, or from the presence of a dead animal can be a risk, especially for children, seniors and the immunosuppressed.

The first step in avoiding a problem is preventive in nature. Pool owners should routinely maintain proper chemical levels in pool water and should ensure that the pool is maintained at a proper pH. The filtration system should be functioning properly and maintenance of the filter should be routine. A short duration visit by an unwelcome creature in a well-maintained pool is likely not a problem as long as the animal leaves nothing behind. Swimming should be suspended until free available chlorine residual levels and pH are checked and verified to be within normal limits.

In the event that a dead animal, feces or vomitus is discovered in the pool, the following recommendations from the U.S. Centers for Disease Control and Prevention (CDC) should be followed. Swimming should cease immediately until the material is removed and sanitation efforts are complete. Nets or scoops can be used to remove the material; the material should never be removed by hand. Vacuuming the pool is not recommended since many pools vacuum materials through the filtration system. Should vomitus or formed stool be discovered in chlorine pools, the free available chlorine concentration should be raised to two parts per million (2 ppm or 2 mg/L), and the pH maintained at 7.5 or less with a pool water temperature of 77°F or higher, for a minimum of 25 minutes. Maintenance of free available chlorine at three ppm permits disinfection time to be reduced to 19 minutes. If a dead animal or diarrhea is found, the free available chlorine should be raised to 20 ppm (or 20 mg/L), and pH maintained between 7.5 or less with a pool water temperature of 77°F or higher for a minimum of 12 hours and 45 minutes. Other combinations of chlorine levels and time may be effective; however the suggested parameters should be obtained from reputable pool maintenance professionals or the CDC Recreational Water Illnesses website (*http://www.cdc.gov/healthywater/pdf/swimming/pools/fecal-incident-response-recommendations.pdf*). When checking chemical levels, samples/measurements should be taken from a minimum of three separate locations distant from water inlets/sources to ensure that chemical levels are sufficient while pH levels are properly maintained throughout the entire pool. In the process of disinfection, remember to disinfect nets and/or scoops. This can be done by first cleaning the net or scoop and then submerging these objects in the swimming pool during the disinfection process. During the disinfection process, the filtration system should be operating continuously. Once the levels of free available chlorine are maintained at the proper pH levels for sufficient duration, backwash the filter to waste, and not back into the filter or pool. Swimming can resume when the free available chlorine residuals are not greater than 3.0 ppm nor less than 1.0 ppm and the pH level is not less than 7.2 nor greater than 7.8.

Contact times listed in the paragraph above are calculated for water at 77°F (25°C). To achieve an equivalent kill of pathogenic organisms, the disinfection process will have to be continued for progressively longer periods of time when the water temperature becomes colder than 77°F. Use of other pool disinfectants, or salt is not mentioned because limited data is available regarding inactivation of pathogens by these products. It is best to check with an experienced pool aquatic professional if the above conditions cannot be met.

Should a raccoon be discovered in a swimming pool, special filtration processes are recommended to eliminate problems with the raccoon roundworm, *Baylisascaris procyonis*, which has been associated with severe neurologic illness in children.

Thanks to Environmental Services, Department of Health and Hopitals (DHH), and Sidney Becnel of Engineering Services, DHH for disinfection information. For additional information, please contact Dr. Balsamo at (504) 568-8315 or email to *gary.balsamo@la.gov*.

(A Primary Amebic ... Continued from Page 1)

characterized by a case fatality rate of 95%. Most of these cases occur in summer, and occur more commonly in children and young male adults diving into, or swimming in bodies of freshwater.

Between 1998 and 2007 *N. fowleri* killed 33 people in the U.S. with the majority of these cases occurring in southern states due to warmer water temperatures. In 2010, the Centers for Disease Control and Prevention (CDC) reported four *N. fowleri* deaths with one case being the first *N. fowleri* fatality in Minnesota.

Epidemiologic Investigation

The Infectious Disease Epidemiology Section, Louisiana Office of Public Health, Department of Health and Hospitals began investigating immediately upon notification of this amebic meningoencephalitis fatality. According to the family, the patient did not participate in surface water-related activities, nor did he fish. The only potential exposure identified was the patient's use of a quite common container for nasal rinsing. For convenience, he kept the container next to the bathroom sink.

Water samples and swabs from the patient's residence and parish water plant distribution samples were collected, as was the moisture that was left in the nasal rinse container. Water collected from the tankless water heater was culture positive for *Naegleria* spp. and *Hartmannella* spp. amebae, and was also PCR positive for *N. fowleri*. Samples from the nasal rinse container, the main shower nozzle, the handheld shower nozzle and the kitchen spray nozzle were also culture positive for *Hartmannella* spp. and *Vanella* spp., but were PCR negative for *N. fowleri*. No amebae were found in the water samples collected from the water plant or the water distribution systems.

Although amebic trophozoites enjoy optimal growth at a water temperature of 107°F (42°C), these organisms do not survive higher water temperatures. The following recommendations were made for the household:

- The tankless water heater should be adjusted so that distant taps would maintain a water temperature of 160°F (71°C).
- All faucets should be run at least five to 30 minutes at 160°F to kill remaining trophozoites. In order to maintain the high temperature for the duration, it is best to run faucets one at a time. Furthermore, in order to reduce the risk of re-colonization, this procedure should be repeated every few weeks.
- An additional option for prevention of *Naegleria* spp. and *Legionella* spp. in water pipes is the installation of a permanent onsite disinfection system such as a filter with an absolute pore size of 0.1 micron. For this preventive measure it is advised to find a company that is experienced with dealing with *Legionella* spp. since interventions for Legionella should be also effective against Naegleria and other amebae.

This case investigation presented a highly unusual exposure through domestic water to *N. fowleri* since most likely exposures to free-living amebae are swimming in or diving into fresh water lakes or ponds so that the amebae are able to enter via the nose and olfactory system into the brain. However, two deaths from PAM occurred in children from Arizona where the only exposure was domestic water supplied from a private water well or holding source.

To our knowledge, the Louisiana fatality is the first U.S. case where the contaminated source was neither fresh water nor came from a private water well. Even though only Hartmanella, a non-pathogenic ameba, could be detected in fluid from the nasal rinse container, this finding is suggestive that other ameba, like Naegleria, would have survived under the same conditions. Therefore the most likely transmission route was through the patient's rinsing of the nose with tap water. With the increasing use of nasal rinses as a preventative treatment for nasal allergies, it is highly recommended that only distilled or previously boiled tap water be used for flushing of the nose.

A recent review of surveys done of drinking water supplies throughout their distribution systems and at the point of use (faucet in dwellings) showed that the presence of free living amebae (pathogenic and non-pathogenic) was very common.

For references or more information, please contact Dr. Straif-Bourgeois at (504) 568-8292 or email to *susanne.straifbourgeois@la.gov*

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diagnosis.

As the program develops, the IPS program should further prove to be a valuable resource in contacting high-risk individuals who would otherwise be unaware of his/her exposures and ultimately function to decrease HIV/STD disease burden in Louisiana.

For more information about IPS, please see the Louisiana OPH STD/HIV program website at *http://www.dhh.louisiana.gov/offices/page.asp?ID=272&Detail=9237*, email to *ips@la.gov*, or call the STD/HIV program office at (504)568-7474. For article references, please email to *julie.holden@la.gov.*

Relationship Between Adolescent Smoking, Students' Attitudes and Family Social Environment Favorable Toward Smoking - Louisiana, 2006

Thi Nguyen, MPH; Tri Tran MD, MPH; Gary Asmus, PhD

Background:

Adolescent smoking is one of the most serious public health problems in developing, as well as in developed countries. Smoking can cause many severe diseases that can be preventable. This study aimed to identify (1) if there was relationship between adolescent smoking, students' attitudes and family social environment favorable toward smoking, and (2) if the effects of students' attitudes that were favorable toward smoking, change among different family and social environments favorable toward smoking.

Methods:

The Louisiana 2006 Caring Communities Youth Survey (CCYS) was used for data analysis. The study population included Louisiana public and private school students in grades 6th, 8th, 10th and 12th (N=107,551). Multiple variable logistic regression was used to determine the association of smoking during the last 30 days with students' attitudes and family social environment favorable toward smoking, controlling for student's demographic characteristics, academic achievement, drinking behavior, and school sector.

Results:

Prevalence of smoking during the last 30 days among students was 13.3%. Students who reported their parents did not feel that it was 'wrong' for their children to smoke, their siblings smoked, or neighbors did not feel it was 'wrong' for children to smoke were more likely to smoke during the last 30 days. Effects of students' smoking attitudes on their use of smoking were dependent on their friends' smoking status (Tables 1 and 2).

Table 1: Prevalence (%) of Smoking During the Last 30 Days by Students' Attitudes and Family Social Environment Toward Smoking - Louisiana CCYS, 2006

Characteristics	Number	Prevalence
Neighbors think 'wrong' if you smoke		
Not 'wrong'	2,062	34.26
'Wrong'	10,811	11.88
Feel 'cool' if someone at your age smokes		
Not 'cool'	5,170	7.56
'Cool'	7,516	27.69
Feel 'wrong' if you smoke		
Not 'wrong'	10,670	30.57
Very 'wrong'	2,189	3.54
Having best friends smoke		
No	2,278	3.56
Yes	10,450	32.79
Having siblings smoke		
No	4,128	7.35
Yes	7,313	24.31
No siblings	594	14.53
Parents think 'wrong' if you smoke		
Not 'wrong'	2,017	34.15
'Wrong'	10,607	11.85

Table 2: Results - Final Model of the Multiple Logistic Regression - Louisiana CCYS, 2006

Variables	OR	95% CI
Parental attitude favorable toward smoking among adolescent		
- Parents did not feel 'wrong' for their children to smoke	2.90	2.55-3.29
- Parents felt 'wrong' for their children to smoke	1.0	
Neighbors attitude favorable toward smoking		
- Neighbors did not feel 'wrong' for children to smoke	1.68	1.55-1.84
- Neighbors felt 'wrong' for children to smoke	1.0	
Sibling smoking use		
- No sibling	1.17	1.03-1.32
- Sibling smokes	1.74	1.65-1.84
- Sibling does not smoke	1.0	
Among students who had friends who ever smoked		
- Students felt 'cool' if smoking	1.75	1.64-1.86
- Students did not feel 'cool' if smoking	1.0	
- Students did not think 'wrong' for someone their age to smoke	4.07	3.75-4.41
- Students thought 'wrong' for someone their age to smoke	1.0	
Among students who did not have friends who ever smoked		
- Students felt 'cool' if smoking	1.50	1.35-1.67
- Students did not feel 'cool' if smoking	1.0	
- Students did not think 'wrong' for someone at their age to smoke	2.90	2.62-3.21
- Students thought 'wrong' for someone at their age to smoke	1.0	

Conclusion:

Students' attitudes and family social environment favorable toward smoking were found to be associated with adolescent smoking. A strategy to reduce smoking among adolescents may achieve a high level of success if there is increased cooperation in smoking cessation among school, family, neighborhood, and policy makers.

For more information, please contact Dr. Tran at (504) 568-3532 or email to *tri.tran@la.gov*.

Announcements

Updates: Infectious Disease Epidemiology (IDES) Webpages

http://www.infectiousdisease.dhh.louisiana.gov

ANNUAL REPORTS: Creutzfeldt-Jakob Disease (CJD); *E. Coli;* Hepatitis A; HIV; Reportable Condition Summary-Past Three Years; Staphylococcal Invasive Disease (MRSA)

EPIDEMIOLOGY MANUAL: Group A Streptococcal (GAS) Infection/ Invasive Group A Streptococcal Disease; Hand, Foot and Mouth Disease (HFMD) Public Information; Legionellosis Summary; Pertussis; Pertussis Summary; Rat-Bite Fever (Haverhill Fever, Sodoku); Streptococcal Diseases Public Information; Streptococcal Group A (GAS) Upper Respiratory Tract Infection (URTI) Summary; Varicella Zoster; Viral Meningitis Summary

HAI: Summer 2011 Newsletter

INFLUENZA: Summary-Human Infection with H3N2 Viruses Showing Genetic Reassortment With 2009 H1N1 Virus- CDC; Weekly Summary

WEST NILE VIRUS: Louisiana Arbovirus Surveillance Summary 2011

Table. Communicable Disease Surveillance, Incidence by Region and Time Period, July-August, 2011

DISEASE		HEALTH REGION 1	2	3	4	5	6	7	8	9	TIME PERIOD Jul-Aug 2011	Jul-Aug 2010	Jan-Dec Cum 2011	Jan-Dec Cum 2010	Jan-Dec % Chg*
Vaccine-preventable															
Hepatitis B	Cases	0	0	0	0	0	0	0	0	1	1	17	30	43	-30.2
	Rate[1]	0	0	0	0	0	0	0	0	0.3	0	0.4	0.7	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	1	0	5	-100.0
Rubella		0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Pertussis		0	0	0	0	0	0	2	0	0	2	6	18	21	NA*
Sexually-transmitted															
HIV/AIDS	Cases[2]	34	28	10	11	4	4	8	14	3	116	194	799	785	1.8
	Rate[1]	3.4	4.8	2.6	2.0	1.4	1.3	1.6	4.0	0.7	2.7	4.4	18.3	18.0	NA*
Chlamydia	Cases[3]	997	229	62	183	163	118	314	167	108	2341	2455	15653	17037	-8.1
	Rate[1]	123.5	35.6	15.7	31.7	57.2	39.3	58.9	48.1	20.7	53.1	55.7	354.9	386.3	NA
Gonorrhea	Cases[3]	278	54	14	34	25	20	142	54	23	644	1119	4415	5260	-16.1
	Rate[1]	34.4	8.4	3.5	5.9	8.8	6.7	26.6	15.6	4.4	14.6	25.4	100.1	119.3	NA
Syphilis (P&S)	Cases[3]	10	2	0	4	3	1	30	3	0	53	142	249	344	-27.6
	Rate[1]	1.2	0.3	0.0	0.7	1.1	0.3	5.6	0.9	0.0	1.2	3.2	5.6	7.8	NA
Enteric															
Campylobacter	Cases	2	5	1	2	2	2	2	6	2	24	45	139	152	-8.6
Hepatitis A	Cases	0	0	0	0	0	1	0	0	0	1	0	3	5	NA*
	Rate[1]	0	0	0	0	0	0.3	0	0	0	0	0.0	0.1	0.1	NA*
Salmonella	Cases	28	38	47	43	21	26	18	27	41	289	362	748	829	-9.8
	Rate[1]	2.7	6.7	12.5	8.3	7.8	8.5	3.6	7.7	10.6	6.7	8.4	17.3	19.2	NA*
Shigella	Cases	27	7	4	4	3	11	9	3	8	76	50	273	180	51.7
	Rate[1]	2.6	1.23	1.061	0.8	1.1	3.6	1.8	0.855	2.1	1.8	1.2	6.3	4.2	NA*
Vibrio cholera	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Vibrio, other	Cases	2	3	1	0	1	0	0	0	5	12	1	39	19	105.3
Other															
H. influenzae (other)		1	2	0	0	0	0	1	0	0	4	2	40	21	90.5
N. Meningitidis		0	0	0	0	0	0	0	1	0	1	1	9	12	NA*

[1] = Cases Per 100,000.

[2] = These totals reflect persons with HIV infection whose status was first detected during the specified time period. This includes persons who were diagnosed with AIDS at the time HIV was first detected. Due to delays in reporting of HIV/AIDS cases, the number of persons reported is a minimal estimate. Data should be considered provisional.

[3] = Transition to a new system has delayed the morbidity reporting; Numbers may be artificially low; Per 100,000 population (2008 population estimate).

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

Table 2. Diseases of Low Frequency, January-December, 2011

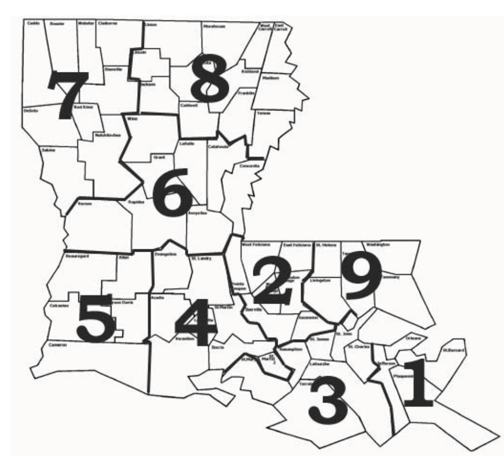
Disease	Total to Date
Legionellosis	13
Lyme Disease	1
Malaria	2
Rabies, animal	2**
Varicella	56

Table 3. Animal Rabies, July - August, 2011

Parish	No. Cases	Species
	0	

**Note: 1 Bat added for Orleans Parish - March, 2011

Figure: Department of Health and Hospitals Regional Map



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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.

- Anthrax
- Avian Influenza
- Botulism
- Brucellosis
- Cholera
- Diphtheria
- *Haemophilus influenzae* (invasive disease)
- Influenza-associated Mortality
- Measles (rubeola)
- Neisseria meningitidis (invasive disease)
- Plague
- Poliomyelitis, paralytic
- Q Fever (*Coxiella burnetii)*
- Rabies (animal and human)
- Rubella (congenital syndrome)
- Rubella (German measles)
- Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV)
- Smallpox
- *Staphylococcus Aureus*, Vancomycin Intermediate or Resistant (VISA/VRSA)
- Tularemia
- Viral Hemorrhagic Fever
- Yellow Fever

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

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

- Arthropod-Borne Neuroinvasive Disease and other infections (including West Nile, St. Louis, California, Eastern Equine, Western Equine and others)
- Aseptic meningitis
- Chancroid[1]
- *Escherichia coli*, Shig-toxin producing (STEC), including *E. coli* 0157:H7
- Hantavirus Pulmonary Syndrome
- Hemolytic-Uremic Syndrome
- Hepatitis A (acute disease)
- Hepatitis B (acute illness & carriage in pregnancy)
- Hepatitis B (perinatal infection)
- Hepatitis E
- Herpes (neonatal)
- Human Immunodeficiency Virus [(HIV), infection in pregnancy][2]
- Human Immunodeficiency Virus [(HIV), perinatal exposure][2]
- Legionellosis (acute disease)
- Malaria
- Mumps
- Pertussis
- Salmonellosis
- Shigellosis
- Syphilis[1]
- Tetanus
- Tuberculosis[2]
- Typhoid Fever

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

Diseases of significant public health concern-report by the end of the workweek after the existence of a case, suspected case, or a positive laboratory result is known.

- Acquired Immune Deficiency Syndrome (AIDS)[3]
- Blastomycosis
- Campylobacteriosis
- Chlamydial infection[1]
- Coccidioidomycosis
- Cryptococcosis
- Cryptosporidiosis
- Cyclosporiasis
- Dengue
- Ehrlichiosis
- Enterococcus, Vancomycin Resistant [(VRE), invasive disease]
- Giardia
- Gonorrhea[1]
- Hansen Disease (leprosy)
- Hepatitis B (carriage, other than in pregnancy)
- Hepatitis C (acute illness)
- Hepatitis C (past or present infection)
- Human Immunodeficiency Virus [(HIV syndrome infection)][2]
- Listeria
- Lyme Disease
- Lymphogranuloma Venereum[1]
- Psittacosis
- Rocky Mountain Spotted Fever (RMSF)
- *Staphylococcus aureus*, Methicillin/Oxacillin Resistant[(MRSA), invasive infection]
- Staphylococcal Toxic Shock Syndrom
- Streptococcal disease, Group A (invasive disease)
- Streptococcal disease, Group B (invasive disease)
- Streptococcal Toxic Shock Syndrome
- *Streptococcus pneumoniae*, penicillin resistant [DRSP]), invasive infection]
- *Streptococcus pneumoniae* (invasive infection in children < 5 years of age)
- Transmissible Spongiform Encephalopathies
- Trichinosis
- Varicella (chickenpox)
- Vibrio Infections (other than cholera)

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]
- Hemophilia[4]
- Lead Exposure and/or Poisoning (children)[4] (adults)[5]
- Pesticide-Related Illness or Injury (All ages)[5]
- Phenylketonuria[4]
- Reye's Syndrome
- Severe Traumatic Head Injury
- Severe Undernutrition (severe anemia, failure to thrive)
- Sickle Cell Disease (newborns)[4]
- Spinal Cord Injury
- Sudden Infant Death Syndrome (SIDS)

Case reports not requiring special reporting instructions (see below) can be reported by mail or facsimile on Confidential Disease Report forms (2430), fascimile (504) 568-8290, telephone (504) 568-8313, or 1-800-256-2748 for forms and instructions.

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

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

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

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

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

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