Louisiana Morbidity Report

Louisiana Office of Public Health - Infectious Disease Epidemiology Section
P.O. Box 60630, New Orleans, LA 70160 - Phone: (504) 568-8313
http://www.dhh.louisiana.gov/offices/reports.asp?ID=249&Detail=7428

Infectious Disease Epidemiology Main Webpage
http://www.infectiousdisease.dhh.louisiana.gov

Bobby Jindal
GOVERNOR

Bruce D. Greenstein
SECRETARY

March - April 2011 Volume 22 Number 2

The Adult Hepatitis B Initiative Louisiana, 2011

Ruben Tapia, MPH; Adrienne Whitney, MPH

Hepatitis B is a serious disease, with both short and long term complications. One of the main goals of the Immunization-Perinatal Hepatitis B Program is to get Louisiana's high risk population vaccinated. Specifically, the program aims to diminish the spread of Hepatitis B from mother to child, and reduce Hepatitis B transmission in adults and adolescent children by using a multifaceted approach that includes immunization and post exposure prophylaxis.

In 2008, the Immunization-Perinatal Hepatitis B Program obtained additional funds to conduct an Adult Hepatitis B Initiative that enabled Immunization to partner with the STD and HIV/AIDS Programs. This new partnership has enabled us to reach another high-risk population that is not normally served by our program. These additional funds allowed the Immunization Program to purchase hepatitis B or A/B vaccines. It also helped improve the delivery of viral hepatitis prevention services in health-care settings and public health programs that serve adults at risk for viral hepatitis.

Nationwide, 56 grantees have joined the Hepatitis prevention initiative enrolling 3,024 locations. In Louisiana, 111 settings were enrolled including STD clinics, jails, prisons, primary care clinics and community-based organizations. The program has proved to be very successful in administering more than 13,000 doses of vaccine, and is looking forward to receiving more funds for the continuation of the program (Table).

Table: Cumulative Vaccine Doses Ordered and Administered - Louisiana, January-December, 2010

Setting	Participating Venues	Venues Reporting	Total Doses Ordered	Total Doses Administered
STD Clinics	76	70 (92%)	14970	12657 (85%)
Jails	3	2 (67%)	20	11 (55%)
Primary Care	8	8 (100%)	690	249 (36%)
HIV Clinics	7	2 (29%)	700	86 (12%)
Prisons	4	4 (100%)	1570	1105 (70%)
SA Treatment *	1	0 (0%)	0	0 (0%)
Local HD *	4	3 (75%)	140	87 (62%)
Other	8	6 (75%)	580	133 (23%)
Total	**111**	**95 (86%)**	**18670**	**13368 (72%)**

** SA Treatment (Substance Abuse Treatment) and Local HD (Local Health Department)*

For information about hepatitis, please go to website *http://www.dhh.louisiana.gov/offices/page.asp?id=249&detail=7274*. For references or more information, please contact Ms. Whitney at (504) 838-5300 or email to *adrienne.mercadel@la.gov*.

Contents

Ending An Outbreak - Shigella Region 8*, Louisiana, 2010

Caroline E. Holsinger, MPH, CPH

Shigellosis (bacterial dysentery) incidence rates have shown a progressive increase in Louisiana over recent years. It is an acute infectious enteritis of humans due to *Shigella* belonging to the Enterobacteriaceae family, closely related to *E.coli*. *Shigellae* are gram-negative rods that are divided into four major O antigenic groups: *Shigella dysenteriae, S.flexneri, S. boydii* and *S.sonnei* with several serotypes in each group. Transmission is via the fecal-oral route. As few as 10 to 100 organisms can cause infection, enabling person-to-person transmission where hygienic conditions are compromised.

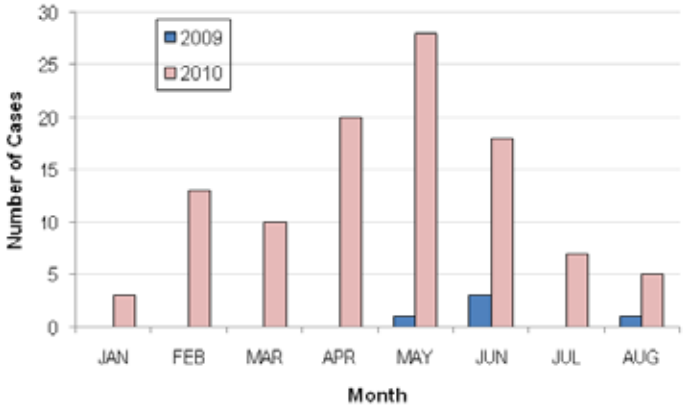
There are between 300 to 600 cases of shigellosis reported every year in Louisiana. Public Health Region 8 (Monroe Area) saw 93 cases from January, 2010 to August, 2010 among school-aged children. During that same time period in 2009, only four cases of shigellosis were reported in Region 8 (Figure 1).

** Map of Regions on Page 7*

(Continued on Page 2)

(Ending an Outbreak ... Continued from Page 1)

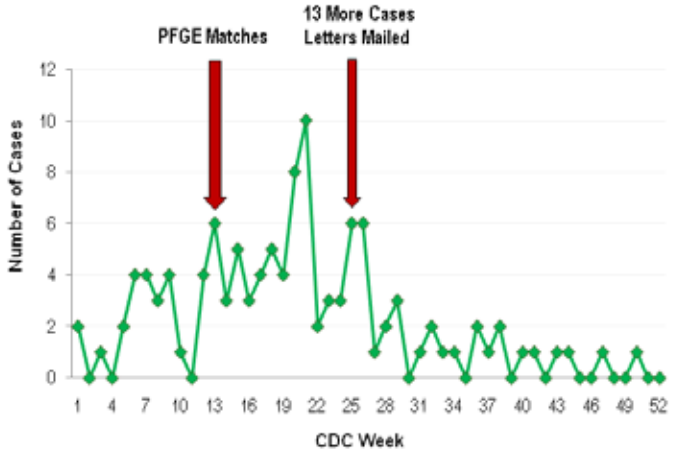
Figure 1: Shigellosis Cases - Region 8, Louisiana, 2009 and 2010



In March 2010, the State Public Health Laboratory identified four cases of infection with *Shigella sonnei* in the Monroe area with identical PFGE (Pulsed Field Gel Electrophoresis) patterns. Upon investigation by the Infectious Disease Epidemiology Section (IDES) of the Office of Public Health, these cases were not found to have any common source exposure.

In late June 2010, 14 more cases with *Shigella sonnei* were identified in the same region with matching PFGE patterns to the March group. IDES re-opened the investigation, sending out letters to private physicians, daycares and area schools alerting them of the increase in shigellosis observed in their region, as well as providing them with signs and symptoms information and guidelines for exclusion. The outbreak appeared to have peaked in May and began to slowly decline, which could be attributed to school being out for the summer and the public health intervention by IDES (Figure 2).

Figure 2: Shigellosis Cases by CDC Week - Region 8, Louisiana, 2010



Conclusion:

There was no common source exposure for this particular outbreak; this was a community-wide outbreak involving school-aged children.

For more information please contact Ms. Holsinger at (504) 568-8307 or email to caroline.holsinger@la.gov.

LSU Researcher Studies *Borrelia burgdorferi* Ecology Louisiana, 2011

An average of six confirmed Lyme disease cases are reported in Louisiana each year. Most of these cases are imported, contracted by Louisiana residents during periods spent in known Lyme endemic areas; however, some cases appear to be contracted locally. The vector tick, *Ixodes scapularis*, is plentiful in several areas of the state; clinical histories of several patients suggest Lyme disease spirochetes (*Borrelia burgdorferi*) may circulate within the state's tick population at some level.

A Ph.D student at LSU's School of Veterinary Medicine is presently conducting a study investigating the existence of *B. burgdorferi* in Louisiana. Brian Leydet (mentored by Dr. Fang-Ting Liang), is investigating the existence of the Lyme disease pathogen in local ticks. While nymphal stages of *I. scapularis* are responsible for the majority of Lyme cases in highly endemic areas, e.g., the northeastern U.S., studies in southern states, such as Louisiana, suggest this stage is rarely encountered by humans and may not play as important a role in the direct transmission of human Lyme disease. In Louisiana, *B. burgdorferi* may more often be transmitted to humans following the bite of the more commonly encountered adult *I. scapularis*. This, coupled with lower infection levels in Louisiana ticks, may explain the lower incidence of disease in the state. Preliminary findings in Mr. Leydet's research support these ideas; however, more investigation and evidence are required to confirm these initial findings.

Mr. Leydet is also studying potential mammalian reservoirs. Several species of rodents are hypothesized as capable reservoirs, and early research findings seem to confirm this assumption.

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

Louisiana Morbidity Report
Volume 22 Number 2 March-April 2011

The Louisiana Morbidity Report is published bimonthly by the Infectious Disease Epidemiology Section of the Louisiana Office of Public Health to inform physicians, nurses, and public health professionals about disease trends and patterns in Louisiana. Address correspondence to Louisiana Morbidity Report, Infectious Disease Epidemiology Section, Louisiana Department of Health and Hospitals, P.O. Box 60630, New Orleans, LA 70160.

Assistant Secretary, OPH	***Clayton Williams, MPH***
State Epidemiologist	***Raoult Ratard, MD MPH***
Editors	***Susanne Straif-Bourgeois, PhD MPH*** ***Theresa Sokol, MPH*** ***Rosemarie Robertson, BS MT(C) CNMT***
Layout & Design	***Ethel Davis, CST***

Louisiana Fact
Share-croppers' Plague - Pellagra

Pellegra, a vitamin deficiency disease, was common in the United States prior to World War II. In this country, it was linked to approximately three million cases and 100,000 deaths from 1906 to 1940. During the years 1928 to 1929 at its peak incidence, pellagra was the eighth or ninth leading cause of death in the South. It was especially prevalent among poor tenant farmer and share-cropper families whose diet consisted largely of salt meat, cornbread and molasses, being largely devoid of vitamins.

Pellegra's symptoms include dermatitis, diarrhea, inflammation of the mucous membranes, dementia and death. The disease was initially believed to be contagious because of the symptoms, the fact that it affected groups of people living in close proximity to each other, and the speed with which the incidence of pellagra reached epidemic proportions. It was more acceptable for pellagra to be considered an infectious disease than a disease that was a direct result of poverty/diet.

Joseph Goldberger, an American physician, epidemiologist and infectious disease specialist, served as a quarantine officer studying yellow fever and typhus in various ports, including New Orleans, After being assigned by the Surgeon General in 1913 to undertake a study for the cause of pellagra, Goldberger determined that this disease was caused by a nutritional deficiency. He soon realized that ordinary yeast contained, and was a potent source of nicotinic acid (vitamin B3-niacin), the pellagra-preventive factor.

After the 1927 flood that devastated many areas in Louisiana, Goldberger arranged to have the Red Cross ship large quantities of yeast into flood-stricken areas along the Mississippi River to try to stem an increase in pellagra cases post-flooding.

Madison Parish Courthouse, Tallulah, Louisiana, Flood of 1927
Copyright - Hermione Museum and the Madison Historical Society

Instead of its usual seasonal incidence, the expected outbreak of pellagra did not occur. However, when yeast provisions were ended after the emergency, the usual level of the disease returned to the area.

Dr. Joseph O'Hara, Louisiana's State Health Officer in 1931 during prohibition, urged the consumption of beer for pellagra sufferers as the yeast content in beer 'had curative powers.' He sent wagonloads of it to be 'judiciously distributed' in areas where new cases of the disease were reported. Dr. O'Hara assured the public that Louisianians could regard these prohibition brews as medicine.

Ann Intern Med. 1994;121:372-375; Yale J Biol Med 1992;65:211-21; CDC MMWR Oct 15, 1999 /48(40);905-913; Louisiana State Board of Health-The Progressive Years;328 Gordon Gillson

Infectious Disease Field Epidemiology Training - Louisiana, 2010

Attendees at the Lafayette Training class - October 26, 2010.

Announcements

Updates: Infectious Disease Epidemiology (IDES) Webpages
http://www.infectiousdisease.dhh.louisiana.gov

ANNUAL REPORTS: Campylobacter; Hepatitis B; Legionella; Summary of the Number of Reportable Diseases, 2009-2011; West Nile Encephalitis or Neuro-Invasive Disease (WNV-NID)

EPIDEMIOLOGY MANUAL: Dengue Form (CDC)
HAI: Conferring Rights Scheme
INFLUENZA: CDC Guidence on the Use of Influenza Antiviral Agents and Rapid Influenza Diagnostic Tests During the 2010-2011 Influenza Season; Weekly Report
SCHOOL RESOURCES: Bats and Rabies at Schools
VETERINARY: Microbiological Makeup of Common Veterinary Infections, Fourth Quarter, 2010 – Canine, Equine and Feline

Asbestosis Hospitalizations Louisiana, 1999-2009

Cassandra Davis, MPH; Jayaprabha Vijaykumar MD MPH; Michelle Lackovic, MPH

Background

Asbestosis is an important occupational health condition for Louisiana workers. The rate of hospitalizations with a diagnosis of asbestosis in Louisiana is significantly greater than the U.S. rate ($p<0.0001$). (The average rate of hospitalizations from 2000 to 2006 for Louisiana was 14.2 per 100,000 residents versus 7.7 per 100,000 residents for the United States.)

The objective of this paper is to describe the impact of asbestosis in Louisiana and to encourage physicians to obtain a comprehensive occupational and environmental history in order to identify people at risk from asbestos exposures. Asbestosis is a debilitating, chronic, lung disease with no known treatment that most commonly occurs among workers in certain occupational settings. As a condition highly associated with occupational exposure, its incidence has been affected by changes in industry standards. In particular, the ban on production and new uses of asbestos put in place during the past 20 to 30 years has significantly reduced occupational exposures. Despite these restrictions, asbestos can still be found in the construction, automotive, railroad and shipbuilding industries due to its favorable chemical properties. Various health outcomes are associated with asbestos exposure including asbestosis, pleural plaques and effusions, carcinomas and mesothelioma.

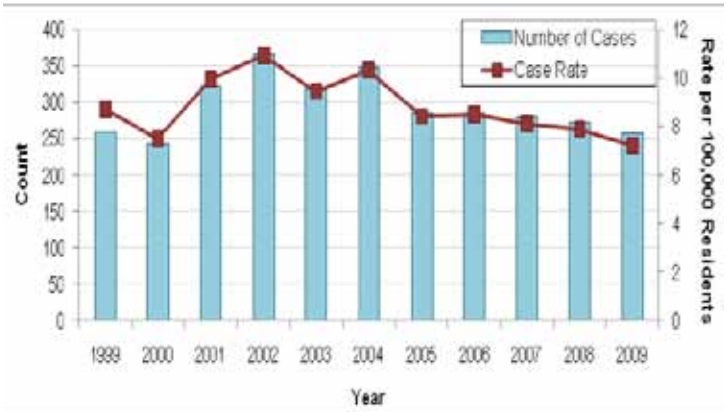
Methodology

A retrospective review of asbestosis hospitalizations using Louisiana Hospital Inpatient Discharge Data (LAHIDD) from 1999 to 2009 was conducted. Records were selected if they had an ICD-9 diagnostic code of 501 (asbestosis) as either a primary or secondary diagnosis and were at least 16 years of age. Repeat admissions and patients who were not residents of Louisiana were excluded. Annual, age-standardized rates were calculated by dividing the total number of identified asbestosis hospitalizations by Louisiana's population aged 16 years and older for the same calendar year and standardized using the U.S. 2000 population figures. Population data was obtained from the U.S. Census Bureau. SAS 9.1 software was used to perform linear regression to determine trends of age-standardized rates of asbestosis hospitalizations; ANOVA (ANalysis Of Variance), and independent T-test were used to compare sex, age, race and geographical differences. A $p<0.05$ for a two-sided hypothesis testing was considered statistically significant.

Results

During the 11-year study period, there were a total of 4,968 hospitalizations of individuals with an asbestosis diagnosis; after controlling for repeat admissions, there were 3,240 unique asbestosis hospitalizations resulting in approximately 295 cases per year (Figure 1).

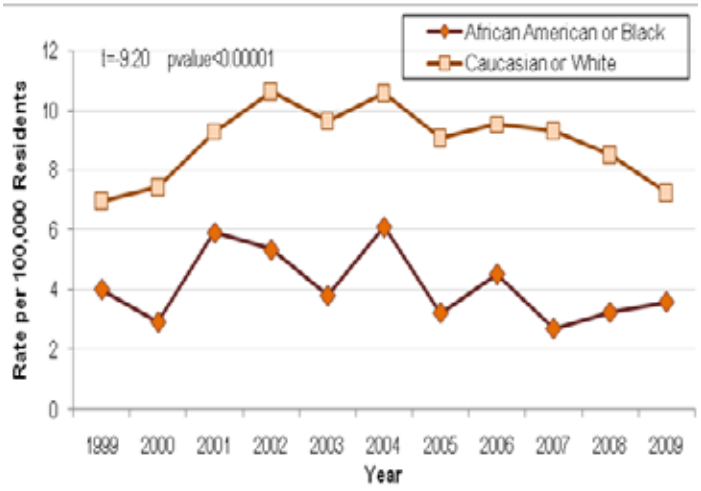
Figure 1: Case Count and Age Standardized Case Rate of Asbestosis Hospitalizations with Asbestosis - Louisiana, 1999-2009



The mean rate for the 11-year period was 8.8 per 100,000 residents (SD=1.19). The age-standardized incidence rate had minimal variation over the study period ranging from a high of 10.95 in 2002 to a low of 7.23 in 2009. Although there is a decreasing trend, it was not statistically significant ($p=0.18$).

Information on race was available for 92% of cases. The 11-year mean age-standardized rates were consistently higher among Whites than Blacks with a mean of 8.93 hospitalizations per 100,000 residents compared to 4.13 hospitalizations per 100,000 residents, respectively. This difference was statistically significant ($p<0.00001$) (Figure 2).

Figure 2: Annual Age Standardized Case Rates of Asbestosis Hospitalizations by Race - Louisiana, 1999-2009

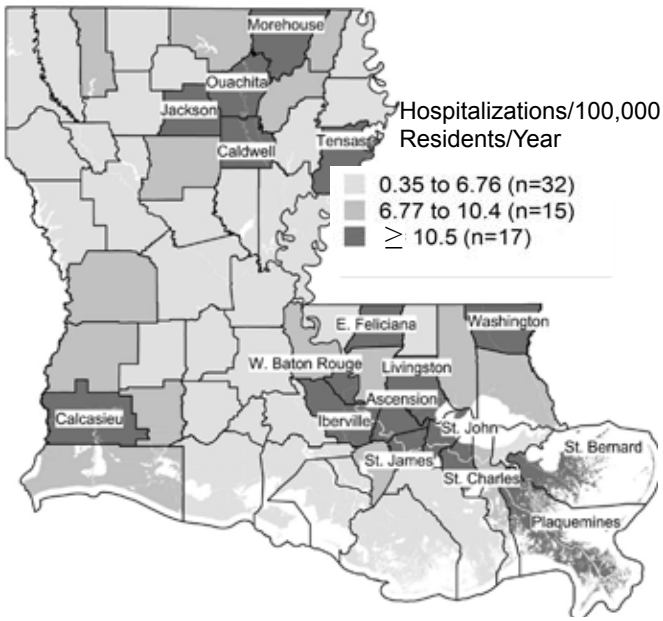


Males had significantly higher age standardized rates than females with a mean hospitalization rate of 20.56 per 100,000 residents compared to 0.69 per 100,000 residents, respectively; the difference was statistically significant ($p<0.00001$).

The mean age of asbestosis cases was 72 (SD=9.65 range 35-99) years and 79% of asbestosis cases occurred among individuals between 65 and 84 years old.

Parish rates were calculated from 2000 to 2009 as the parish -level data was not available for 1999. Rates were calculated using the patient's parish of residence at the time of hospitalization (Figure 3).

Figure 3: Asbestosis Hospitalization Rate by Parish
Louisiana, 2000-2009



The mean incidence rate for the state was 7.48 per 100,000 residents. In general, parishes with the highest hospitalization rates (>10.51 per 100,000 residents) are clustered in the northeast and within the industrial corridor (river parishes between New Orleans and Baton Rouge).

Discussion

This is the first population-based analysis of asbestosis in Louisiana. Results indicate that Louisianians have consistently elevated rates of asbestosis in comparison with national rates, the number of Louisianians hospitalized with asbestosis has remained steady during the 11-year period.

The elevated case rate among males compared with females reflects gender differences in occupational patterns. Women's share of manual labor occupations remained unchanged between 1975 and 1995 at 24%, emphasizing that men accounted for the majority of employment in industries with the highest risk of asbestos exposure such as shipbuilding and construction.

Based on employment data in the construction and automotive industries from 1999 to 2009, males comprised approximately 74% of employees compared with 12% by females. These work patterns and resulting health outcomes are not unique to asbestos exposure. Overall, males have much greater work-related mortality and hospitalization rates. Recent studies of Louisiana workers found that males represent more than 90% of work-related mortalities and 75% of work-related hospitalizations.

The elevated rate among Whites compared with Blacks may also reflect employment patterns. Using data from the Current Population Survey, the rate of Whites employed in the construction industry from 1999 to 2009, was higher than the rate for Blacks ($p<0.0001$). (The average rate of Blacks employed in the construction industry from 2000 to 2009 was 7,381 per 100,000 employed population versus 10,277 per 100,000 employed population for Whites.)

Older residents had more asbestosis hospitalizations than younger ones due to the disease's long latency period of approximately 20 years. The development of the disease requires heavy exposure to asbestos, and the latency period is inversely proportional to exposure level.

The parishes that had incidence rates two to three times greater than the state average are parishes located in regions where ship yards, power plants, oil refineries and railroad industries are most abundant. Previous studies have shown that shipyards along the southern coast as well as southeast Louisiana extensively used asbestos as insulator for pipes and within the walls of ships. A risk of exposure to asbestos occurs during demolition and building of ships.

Power plants in east and south Louisiana contain pipes and boilers that are covered with asbestos fibers for thermal insulation purposes. These asbestos fibers can be disrupted and released into the air during routine checking and maintenance of the pipes and boilers.

Other sources of asbestos exposure are: railroads in north Louisiana; oil rigs and refineries in the Gulf of Mexico, and along the southern coast of Louisiana; construction industries throughout the state. Asbestos is released in these industries from the lining of brakes on trains during usage, the gripping of rings associated with brake systems in drilling equipment on oil rigs, the building and demolition of continuous walls enclosing oil rig platforms, and ceiling and floor tiles in homes and other buildings.

Conclusions

Historic asbestos uses in Louisiana, such as ship-building, may have resulted in increased asbestos exposure to Louisiana residents in comparison with other states as reflected in Louisiana's significantly elevated rate. Although it is expected that hospitalization rates increase with age, the racial and geographical differences are surprising. The significant difference between Blacks and Whites may reflect racial differences in occupations that were present 40 to 50 years ago.

High rates of hospitalizations in river parishes are not surprising since asbestos was heavily used in the shipbuilding industries located in these areas. However, clustering in the northeastern area of the state was not expected. The geographical clustering may reflect data limitations as parish information denotes the patient's residence at the time of hospitalization, which may not reflect where the person worked. It is expected that the hospitalization rate will remain high due to asbestosis's long latency period and the relatively recent ban on new uses. Despite stricter regulations, there is still a risk of exposure due to the continued use of many asbestos-containing products that were not affected by the ban. Monitoring the impact of these products on workers will require ongoing tracking of asbestosis cases in order to better identify high risk work practices and settings. This information, in turn, can result in a tightening of workforce regulations, if warranted. Healthcare providers can assist public health officials in this pursuit by collecting and recording patients' occupational history.

For references and more information, please contact Ms. Davis at (504) 219-4783 or email to *cassandra.davis@la.gov*.

Hospitals Plan For An Influenza Pandemic - Louisiana, 2011

Karen Stassi, RN MS

No one knows when the next influenza pandemic will strike. While the 2009 H1N1 pandemic was relatively mild, there is no reason to believe the next pandemic won't be more severe. Hospitals will have to meet the surge needs that arise from a virus whose nature is unpredictable at this time, recognizing that the assumptions explicitly described here may vary in either direction. Hospitals have been preparing for several years for such an event. In order to estimate the impact a moderate pandemic will have on hospitals, an average of the 1968 and 1918 pandemic was identified as the "likely" scenario (averaging the mildest and most severe pandemics of the 20th century). Flu Surge Software, publicly available from the Centers for Disease Control and Prevention website, provided the basis for calculating the Table below.

Table: Pandemic Influenza Impact on Louisiana

Pandemic Influenza Impact / Weeks		1	2	3	4	5	6	7	8	9
Hospital Admission	Weekly Admissions	3,380	5,634	8,450	10,704	10,704	8,450	5,634	3,380	
	Peak Admissions/Day				1,668	**1,668**				
Hospital Capacity	# of Influenza Patients in Hospital	2,485	4,141	6,212	7,868	8,147	7,161	5,492	3,603	
	% of Hospital Capacity Needed	28%	47%	71%	89%	**93%**	81%	62%	41%	
ICU Capacity	# of Influenza Patients in ICU	1,014	2,150	3,302	4,362	4,721	4,592	3,649	2,520	
	% of ICU Capacity Needed	103%	217%	334%	441%	**477%**	464%	369%	255%	
Ventilator Capacity	# of Influenza Patients on Ventilators	845	1,792	2,752	3,635	3,934	3,827	3,041	2,100	
	% Usage of Ventilator	146%	309%	475%	627%	**679%**	660%	524%	362%	
Deaths	# of Deaths from Influenza			771	1,286	1,928	2,443	2,443	1,928	1,286
*	# of Influenza Deaths in Hospital			540	900	1,350	1,710	1,710	1,350	900

** Deaths are based on the mortality rate assumed in the model 1.25% but, would obviously be dependent on ventilator shortfall, availability of vaccine and antivirals.*

Based on the following assumptions, the Table demonstrates the impact of a moderate panflu event over an eight-week period of time. As a rough approximation, the numbers in the Table would have to be doubled to approximate the impact of the pandemic of 1918. The Table is based on the assumption of a case fatality ratio of approximately 1.25%; 30% of hospitalized patients will need an ICU bed, 25% of hospitalized influenza patients will need ventilators and only 20% of ventilators will be available for pandemic influenza patients because other patients will continue to have conditions requiring ventilator support. If the pandemic is less lethal than 1.25% mortality, these numbers may be too high, However, in 1918 the case fatality ratio was 2.5%, and there is no *a priori* reason that a pandemic virus might not have a case fatality ratio significantly greater than 2.5%.

Week 5 of FluSurge Model predicts the highest inpatient census for hospitals. It is important to note that the peak patient census estimated by FluSurge will be patients over and above the hospitals' routine patient care census.

An influenza pandemic could place a huge burden on Louisiana's health care system. While there has been significant progress by hospitals towards meeting and managing a pandemic event more severe than the H1N1 of 2009, it will remain difficult, if not impossible, to meet all of the needs of a population during any enhanced influenza activity. Hospitals have been purchasing additional equipment (such as ventilators) with federal grant funds over the past several years. The Louisiana Hospital Association is currently in the process of conducting a needs assessment survey of hospitals to determine existing levels of preparedness. Health care professionals at all levels (including primary care, home health, nursing homes and tertiary care facilities) need to prepare for and identify methods to minimize the impact of a severe pandemic. Pre-pandemic planning by health care facilities is therefore essential to provide quality, uninterrupted care to ill persons and to prevent further spread of infection. Effective planning and implementation will depend on close collaboration among state and local health departments, community partners, and neighboring and regional healthcare facilities.

For more information, please contact Ms. Stassi at (985) 796-9857 or email to karen.stassi@la.gov.

Table. Communicable Disease Surveillance, Incidence by Region and Time Period, January-February, 2011

DISEASE		HEALTH REGION 1	2	3	4	5	6	7	8	9	TIME PERIOD Jan-Feb 2011	Jan-Feb 2010	Jan-Feb Cum 2011	Jan-Feb Cum 2010	Jan-Dec % Chg*
Vaccine-preventable															
Hepatitis B	Cases	0	1	1	2	1	0	1	1	3	10	13	10	13	-23.1
	Rate[1]	0	0.2	0.3	0.4	0.4	0	0.2	0.3	0.8	0.2	0.3	0.2	0.3	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	0	0	0	1	0	0	2	7	2	7	-71.4
Sexually-transmitted															
HIV/AIDS	Cases[2]	43	33	3	12	6	4	13	6	9	129	202	129	202	-36.1
	Rate[1]	4.3	5.7	0.8	2.2	2.2	1.3	2.6	1.7	2.1	3.0	4.6	3.0	4.6	N/A*
Chlamydia	Cases[3]	1008	334	56	253	99	315	372	362	415	3214	4730	3214	4730	-32.1
	Rate[1]	124.9	51.9	14.2	43.8	34.8	104.9	69.7	104.3	79.5	72.9	107.2	72.9	107.2	NA
Gonorrhea	Cases[3]	293	69	14	55	23	90	152	133	75	904	1441	904	1441	-37.3
	Rate[1]	36.3	10.7	3.5	9.5	8.1	30.0	28.5	38.3	14.4	20.5	32.7	20.5	32.7	NA
Syphilis (P&S)	Cases[3]	1	1	0	3	0	1	23	1	1	31	65	31	65	-52.3
	Rate[1]	0.1	0.2	0.0	0.5	0.0	0.3	4.3	0.3	0.2	0.7	1.5	0.7	1.5	NA
Enteric															
Campylobacter	Cases	2	3	3	10	2	3	0	2	1	26	28	26	28	NA*
Hepatitis A	Cases	1	0	0	0	0	0	0	0	0	1	1	1	1	NA*
	Rate[1]	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	NA*
Salmonella	Cases	14	10	6	13	1	4	4	6	2	60	82	60	82	-26.8
	Rate[1]	1.3	1.8	1.6	2.5	0.4	1.3	0.8	1.7	0.5	1.4	1.9	1.4	1.9	NA*
Shigella	Cases	13	0	0	6	1	1	1	0	1	23	21	23	21	NA*
	Rate[1]	1.3	0	0	1.2	0.4	0.3	0.2	0	0.3	0.5	0.5	0.5	0.5	NA*
Vibrio cholera	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Vibrio, other	Cases	0	2	0	0	0	0	0	0	0	2	0	2	0	NA*
Other															
H. influenzae (other)		5	6	0	1	0	1	0	2	0	15	7	15	7	114.3
N. Meningitidis		0	0	0	2	0	0	1	0	0	3	6	3	6	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	6
Lyme Disease	0
Malaria	0
Rabies, animal	0
Varicella	13

Table 3. Animal Rabies, January - February, 2011

Parish	No. Cases	Species
	0	

Figure: Department of Health and Hosptials Regional Map

DEPARTMENT OF HEALTH AND HOSPITALS
OFFICE OF PUBLIC HEALTH
P.O. BOX 60630 NEW ORLEANS LA 70160

PRSRT STD
U.S. POSTAGE
P A I D
Baton Rouge, LA
Permit No. 1032

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

This public health document was published at a total cost of $1,575.00. Seven thousand copies of this public document were published in this first printing at a cost of $1,575.00. The total cost of all printings of this document, including reprints is $1,575.00. This document was published by Moran Printing to inform physicians, hospitals, and the public of current Louisiana morbidity status under authority of R.S. 40:36. This material was printed in accordance with the standards for printing for state agencies established pursuant to R.S. 43:31. Printing of this material was purchased in accordance with the provisions of Title 43 of Louisiana Revised Statutes