STATE OF LOUISIANA

DEPARTMENT OF HEALTH AND HOSPITALS

Louisiana Morbidity Report

Louisiana Office of Public Health - Infectious Disease Epidemiology Section

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March-April 2010 **Volume 21 Number 2**

Hand, Foot and Mouth Disease Louisiana, 2010

Erin Delaune, MPH

In January, 2010, a report was made to the Infectious Disease Epidemiology Section that a toddler in a day care center had been diagnosed with Hand, Foot and Mouth Disease (HFMD). Concerns were expressed because the decision had been made by the director to not exclude the child from day care. Educational material on the disease was given to the person making the report to ease worries about HFMD.

HFMD (not to be confused with Foot and Mouth Disease [FMD] discussed later in this article) is caused by members of the Enterovirus genus. It is most commonly caused by an infection with coxsackievirus A16, which usually leads to uncomplicated HFMD, although viral meningitis may occasionally occur from this infection. Enterovirus 71 (EV71) can also cause HFMD as well as viral meningitis, encephalitis, or a polio-like paralysis. An infection with EV71 has a higher incidence of causing complications involving the central nervous system compared to the other viruses. On rare occasions, encephalitis or meningitis caused by EV71 is fatal. A third virus, group A coxsackievirus 10, is also known to cause HFMD. All 3 of these viruses can cause the same symptoms; etiologic diagnosis depends on the isolation of the virus and, serotype identification of the isolate. The virus can be isolated from both stool specimens and, throat swabs. The rash associated with HFMD is distinct enough that often times, the disease diagnosis can be done without etiologic diagnosis.

HFMD is transmitted from person-to-person and is a common illness of infants and, children under 10 years of age, occurring

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Epidemiology of Bell's Palsy Louisiana, 1999-2007

Jason Polchinski, MD MPH

Bell's palsy is an idiopathic, unilateral cranial nerve VII palsy that results in upper and lower facial weakness. It is a benign disease with a full recovery expected in most patients, although some may have subtle residual weakness. Large epidemiologic studies have determined that the disease occurs in both men and women, in all age groups and, at all times of the year. The incidence rate of the disease in the United States is approximately 23 cases per 100,000 persons per year. While the disease is by definition, idiopathic, it is assumed to be associated with reactivation of the herpes simplex virus, especially around the geniculate ganglion and, the facial nerve. An increased risk for Bell's Palsy has been identified in diabetic patients, women in the third trimester of pregnancy and, possibly patients with hypertension.

Bell's Palsy is a relatively common malady; however, there is little published epidemiologic data about the disease in Louisiana. Potentially useful inpatient data about the disease, while limited due to the outpatient nature of the disease, was analyzed and, categorized. A de-identified database of 3,668 inpatients with Bell's Palsy was derived from the Louisiana Inpatient Hospital Discharge Database (LaHIDD). The objectives were to categorize and analyze demographic information and disease comorbidities in Louisiana inpatients diagnosed with Bell's Palsy, as well as to determine accuracy of the diagnoses. First, the total number of annual inpatient Bell's Palsy cases in Louisiana and, the annual rates were determined. There was a mean of 407 (SD 57.7) inpatient cases per year with the mean annual rate being 9.2 (SD 1.2) per 100,000. This is in contrast to the recognized national incidence of 23 per 100,000.

The mean rate for the 0 to 14 year-old age group was 0.94 (SD 0.32) per 100,000; for the 15 to 24 year-olds, 3.24 (SD 0.87) per 100,000; for the 25 to 44 year-olds, 5.29 (SD 0.73) per 100,000; for the 45 to 64 year-olds, 13.1 (SD 2.6) per 100,000; for those older than 65 years, 35.3 (SD 6.5) per 100,000. The differences in rate between those older than 65 years and those in the 45 to 64 year age group, as well as those in the 45 to 64 and 25 to 44 year-old age groups, were each statistically significant with $p<0.0001$.

The potential misclassification of Bell's Palsy was considered. Cerebrovascular disease (including stroke, transient ischemic attack (TIA), and intracranial hemorrhage), Lyme disease and, sarcoidosis will sometimes present as a unilateral facial paralysis.

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Data Drives Planning to Reduce Infant Mortality Louisiana, 2003-2005

Lyn Kieltyka, PhD; Melissa Brown, MPH; Tri Tran, MD MPH

As part of the Louisiana Infant Mortality Reduction Initiative, that addresses Louisiana's high perinatal mortality rates, the Louisiana Office of Public Health, Maternal and Child Health (MCH) Program, analyzed state-wide perinatal mortality rates using the Perinatal Periods of Risk (PPOR) approach.

Background

PPOR is a methodological approach used to analyze fetal and infant (perinatal) mortality rates, designed to address perinatal mortality in developing countries. Since its acceptance in the United States, PPOR has been widely used by public health entities at the local, state, regional and, national levels. The CityMatCH website (*www.citymatch.org*) details the approach, including providing analytic guidelines to those interested in applying the methodology to new areas.

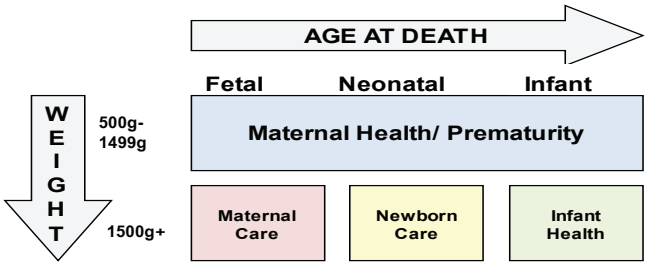
Data Linkage

The Louisiana State Center for Health Statistics issued birth, death and fetal death certificate files as well as a master linkage file containing matched birth and death ID numbers for all infants who died between 1997 and 2006. This analysis includes only 2003 to 2005 births and fetal deaths of Louisiana residents. Birth records were deterministically linked to death records via the master linkage file using cohort methodology (each birth followed forward for up to 12 months to determine if death occurred). Vital Records staff searched for unmatched Louisiana resident records, resulting in a final linkage rate of 96.4 percent.

PPOR Methods

PPOR methodology excludes fetal and infant deaths weighing less than 500 grams at birth and fetal deaths delivered before 24 weeks gestation. The crude perinatal mortality rate was calculated as the number of eligible fetal and infant deaths divided by the total number of eligible fetal deaths and live births. PPOR tables were calculated by dividing the eligible fetal and infant deaths into 4 non-overlapping cells based on birth weight (500-1499 grams and 1500+ grams), and age at death (fetal, neonatal and postneonatal) (Figure 1).

Figure 1: PPOR Concept Map



Each of the 4 cells represents deaths likely to be associated with specific causes or contributing factors and therefore, potential interventions. (Table 1)

Table 1: PPOR potential interventions by cell group

Maternal Health/ Prematurity	**Preconceptional Health (Folic Acid, Smoking, Alcohol)** **Unintended Pregnancies** **Maternal Risk Factors (High Blood Pressure, Bacterial Vaginosis)** **Easy Access to Family Planning**
Maternal Care	**Early and Continuous Prenatal Care** **High Risk Obstetrical Care** **Appropriate Weight Gain** **Maternal Health Risks (Diabetes, Seizures)**
Newborn Care	**Perinatal Management** **Advanced Neonatal Care/ Pediatric Surgery** **Treatment of Congenital Anomalies**
Infant Health	**Sleep Positions & Safe Sleep Environment** **Breast Feeding Promotion** **Injury Prevention** **Access to Medical Homes**

Results of the 2003-2005 PPOR Analysis

From 2003 to 2005, Louisiana's crude PPOR perinatal mortality rate was 11.0 fetal and infant deaths per 1000 live births plus fetal deaths. Of these deaths, 4.5 per 1000 fell in the maternal health/ prematurity cell, representing fetal and infant deaths of very low birth weight (VLBW < 1500 grams) deliveries regardless of age at death. This cell comprised the largest proportion of the crude mortality rate, accounting for 41% of total perinatal mortality. The infant health cell (representing post-neonatal deaths of low and normal birth weight infants) comprised the second largest proportion of the crude mortality rate, accounting for 26% of total perinatal mortality. The maternal care and neonatal care cells accounted for 18% and 15% of total mortality, respectively. Compared to the "best-case" group (Louisianians, White, non-Hispanic/Others, at least 20 years old and with at least 13 years of education), excess mortality rates for the State overall were highest in the maternal health/prematurity followed by infant health cells, which combined accounted for over 80% of all potentially preventable deaths.

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Table 2: Crude perinatal and PPOR mortality rates per 1000 live births and fetal deaths for all races by Public Health region - Louisiana, 2003-2005

Area	Maternal Health/ Prematurity		Maternal Care		Newborn Care		Infant Health		Total Perinatal Mortality	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Region 1	168	4.2	64	1.6	63	1.6	116	2.9	411	10.3
Region 2	120	4.7	45	1.7	35	1.4	67	2.6	267	10.4
Region 3	58	3.5	37	2.2	25	1.5	40	2.4	160	9.6
Region 4	115	4.6	48	1.9	47	1.9	70	2.8	280	11.2
Region 5	53	4.4	26	2.1	19	1.6	37	3.1	135	11.2
Region 6	62	4.7	31	2.3	21	1.6	49	3.7	163	12.3
Region 7	128	5.7	48	2.1	42	1.9	58	2.6	276	12.3
Region 8	91	6.1	35	2.4	19	1.3	56	3.8	201	13.6
Region 9	62	3.1	44	2.2	36	1.8	63	3.1	205	10.2
Louisiana	857	4.5	378	2.0	307	1.6	556	2.9	2098	11.0
Louisiana Reference	128	2.4	67	1.3	70	1.3	79	1.5	344	6.6

Perinatal mortality rates and excess mortality were also calculated for each of Louisiana's 9 Public Health regions (map of regions on page 7) (Table 2).

Regional perinatal mortality rates ranged from a low of 9.6 per 1000 in Region 3 to a high of 13.6 per 1000 in Region 8. Region 8 also had the highest excess perinatal mortality (Table 3), with the potential opportunity to prevent over 7 fetal and infant deaths per 1000 live births and fetal deaths.

Table 3: Excess perinatal mortality rates per 1000 live births and fetal deaths for all races by region, Louisiana PPOR 2003-2005

Area	Maternal Health/ Prematurity Excess	Maternal Care Excess	Newborn Care Excess	Infant Health Excess	Total Perinatal Mortality Excess
Region 1	1.8	0.3	0.2	1.4	3.7
Region 2	2.2	0.5	0.0	1.1	3.8
Region 3	1.0	0.9	0.2	0.9	3.0
Region 4	2.1	0.6	0.5	1.3	4.5
Region 5	1.9	0.9	0.2	1.5	4.5
Region 6	2.2	1.1	0.2	2.2	5.7
Region 7	3.2	0.8	0.5	1.1	5.6
Region 8	3.7	1.1	0.0	2.3	7.1
Region 9	0.6	0.9	0.4	1.6	3.5
Louisiana	2.1	0.7	0.3	1.4	4.5

The 'Maternal Health/Prematurity' cell represents losses of VLBW deliveries. Increasing preconception care, modifying maternal health behaviors and assessing and improving access to family planning services are top PPOR recommended priorities to consider. Regions 7 and 8 had high excess mortality in this cell, each having the potential opportunity to prevent more than 3 deaths per 1000.

The 'Maternal Care' cell represents late fetal deaths (fetal deaths weighing ≥ 1500 grams). Most regions in Louisiana have little excess mortality in this cell. While no region had mortality rates as low as the "best-case" group, excess mortality ranged from 0.3 deaths per 1000 to 1.1 deaths per 1000, indicating that prenatal care, including high risk obstetrical care, is likely available to most Louisiana women.

The 'Newborn Care' cell, or neonatal deaths of low and normal birth weight infants, has traditionally been linked to availability and, access to advanced perinatal services. Overall, Louisiana does very well in that excess mortality from this particular cell is usually small if not non-existent. From 2003 to 2005, Regions 2 and 8 had no excess mortality in this group of infants, suggesting that the availability and use of advanced perinatal services has achieved "best-case" levels. The MCH Program annually monitors the percent of VLBW infants born in facilities with subspecialty care. Results show that Louisiana is nearing the Healthy People 2010 goal of having at least 90% of VLBW births in Level 3 or higher facilities. Ongoing monitoring of current systems and practices may help further reduce deaths of these infants.

The 'Infant Health' cell represents postneonatal deaths of low and normal birth weight infants. Regions 6 and 8 had high excess mortality in this cell, with the opportunity to prevent more than 2 infant deaths per 1000 births. In addition, nearly 50% of preventable deaths in Region 9 occurred among low and normal birth weight, post-neonatal infants. Priority PPOR recommended interventions include injury prevention efforts, breastfeeding education and, awareness of proper sleep position.

Finally, excess mortality was calculated by comparing each cell rate to a "best-case" reference group known to have a low mortality experience. This excess provides an estimate of how many deaths could be prevented if the study group had a similar mortality experience to the "best-case" group. The largest excess indicates the greatest opportunity to prevent future deaths.

Implications

Louisiana remains among the states with the highest infant mortality, ranking 49th in 2006. PPOR methods confirm that the highest portion of the perinatal mortality rate and the best opportunity for prevention is in the 'Maternal Health/ Prematurity' (VLBW) cell; potential interventions include increased pre- and, inter-conception care, increasing access to family planning services, promoting health behaviors such as folic acid intake and, discouraging behaviors such as alcohol use and, cigarette smoking. The second most critical component identified through PPOR analyses is mortality occurring in the 'Infant Health' cell; corresponding potential interventions include injury prevention, breast-

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Outbreak Investigations - Louisiana, 1950-2008

Outbreaks observed in the past 58 years in Louisiana have been primarily categorized by transmission type. For analyses purposes, 14 categories have been designated. The number of outbreaks has steadily increased during these years; however this could be partly due to improved surveillance and reporting rather than an actual increase in the number of outbreaks. For example, 60% of the outbreaks occurring during 2005 were during the month of September, coinciding with the aftermath of Hurricane Katrina; 31% of those were foodborne (Table).

Table: Number of outbreaks, by category and decade – Louisiana, 1950-2008

	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2008	Total
Foodborne/ Enteric	19	53	56	47	77	140	392(50%)
Respiratory	2	0	5	26	17	20	70 (9%)
Other*	2	3	6	7	6	41	65 (8%)
Hepatitis	3	9	21	13	16	2	64(8%)
SSTI**	0	7	6	3	7	12	35 (5%)
Parasite	0	1	1	10	1	6	19 (2%)
MMRV & Other***	0	0	9	2	1	6	18 (2%)
Zoonotic	5	1	5	1	2	0	14(2%)
HAI****	0	1	1	5	1	2	10 (1%)
Fungal	0	1	0	0	0	3	4 (1%)
Arbovirus	0	0	2	0	1	0	3 (1%)
Waterborne	1	0	2	0	0	0	3 (1%)
Oral-Fecal	0	0	0	0	0	2	2 (<1%)
Chronic	1	0	0	0	0	0	1 (<1%)
Total	**33**	**76**	**114**	**114**	**129**	**234**	**700**

* *Anaphylaxis Asphyxia, Cancer, Chemical, Herpes Simplex Virus, Hysteria, Metal, Miscarriages, Neuromyasthenia, Pesticides, Suicide, Syphilis, Tetanus, Toxic, Zinc, Unknown*

** *SSTI: Skin and soft tissue infection*

*** *MMRV & Other: measles, mumps, rubella, varicella and other related infections*

*****HAI: hospital-acquired infection*

For the complete report, please visit the following website *http://www.dhh.louisiana.gov/offices/miscdocs/docs-249/annual/LaIDAnnual_Outbreaks.pdf*

(Bell's Palsy.....Continued from page 1)

While it is certainly possible for an individual to have one of these diseases and simultaneously develop a true, idiopathic Bell's Palsy, it is more likely that the unilateral facial paralysis was simply misclassified. While there were only a few co-morbid sarcoidosis cases per year and no Lyme disease cases in the cohort, the presence of co-morbid cerebrovascular disease was very common. On average, 22.1% (SD 2.6) of "Bell's Palsy" patients had a concurrent diagnosis of some form of cerebrovascular disease. The range was 19.6% to 27.2%. Additional data can be found in the Table.

Table: Number and percent of stroke/TIA cases among reported cases of Bell's Palsy - LaHIDD, 1999-2007

Year	Number of Stroke/TIA	Total Cases	Percent Stroke/TIA
1999	84	412	20.4
2000	86	395	21.7
2001	62	315	19.7
2002	109	482	22.6
2003	105	455	23.1
2004	128	470	27.2
2005	105	426	24.6
2006	71	361	19.6
2007	68	347	19.6

Late-stage pregnancy, viral upper respiratory infections (URI) and Type I and II Diabetes Mellitus (DM) have all been linked to

Bell's Palsy. Analysis of the inpatient cohort for this project revealed the mean co-morbid pregnancy rate to be 2.3% (SD 0.87), the co-morbid viral infection rate to be 1.1% (SD 0.45), and the co-morbid DM (I or II) rate to be a sizeable 21.7% (SD 3.4). In contrast, the most recent published Centers for Disease Control and Prevention (CDC) data on DM prevalence in Louisiana estimates that only 10.7% of Louisianans have been diagnosed with the disease (either type).

The most obvious drawback to the study was the fact that the database consisted solely of inpatients, despite the fact that Bell's Palsy is typically managed in an ambulatory setting. The demographic data derived from these sicker patients is not likely reflective of the overall population of Bell's Palsy patients.

Another large shortcoming in this study was the significant misdiagnosis rate. Over 20% of the patients in the database may have been mislabeled with Bell's Palsy, when in reality they had another malady responsible for their unilateral facial paralysis, typically cerebrovascular disease. While this is an unfortunate reality of many retrospective chart-review type studies, the lack of understanding of the true definition of Bell's Palsy may have made this problem even more pronounced.

Despite the limitations, some unexpected results were uncovered. The rate of inpatient Bell's Palsy in Louisiana was well below the national average (includes ambulatory and inpatient), although this was almost certainly skewed by the exclusive inpatient population in the database. Another interesting anomaly was the significantly higher rate of disease in females as compared to males. This is at odds with the accepted even gender distribution of the disease. The significantly higher rate of disease in the older inpatients is likely a consequence of older people tending to be hospitalized more often in general, as opposed to anything peculiar to Bell's Palsy.

The high rate of diabetes in Bell's Palsy inpatients relative to the general population in Louisiana is interesting. However, there are several possible confounders. First of all, diabetes is strongly correlated with vascular disease risk and many of the patients in the database were actually victims of cerebrovascular events and misdiagnosed with Bell's Palsy. Secondly, the CDC data only describes patients who were formally diagnosed with DM by their physicians. There is almost certainly a large cohort of diabetics in Louisiana who have never been diagnosed and therefore, the CDC estimate may be artificially low. Thirdly, the higher rate of diabetes in the patients analyzed could simply be due to their status as inpatients, while the CDC estimate looked at the entire population. Finally, DM can occasionally cause a cranial mononeuropathy that can present as a unilateral facial paralysis. Since this paralysis is not idiopathic, it would not be considered a Bell's Palsy. However, it would be nearly impossible to differentiate the two in clinical practice. These confounders may limit the significance of the higher-than-expected rate of co-morbid DM in the patients studied.

The most important recommendation that can be made is for clinicians and coders to be better educated on the definition of Bell's Palsy.

For references and more information, please contact Infectious Disease Epidemiology at (504) 219-4563.

Announcements

May Is Hepatitis Month!

Hepatitis C 'Train the Trainer' Workshops

http://www.dhh.louisiana.gov/offices/page.asp?id=249&detail=9043

All 3 workshops will be from 8:30 AM to 5:00 PM and are free of charge. Attendees must register.

New Orleans, LA - May 10, 2010
Baton Rouge, LA - May 11, 2010
Alexandria, LA - May 14, 2010

Four-Dose Postexposure Rabies Vaccine Now Official

Recommendations of the Advisory Committee on Immunization Practices for use of a reduced (4-Dose) vaccine schedule for postexposure prophylaxis to prevent human rabies was announced in the March 19, 2010 issue of the Center for Disease Control and Prevention's Morbidity and Mortality Weekly Report. Please see the following web address for the full article. *http://www.dhh.louisiana.gov/offices/miscdocs/docs-249/vet/MMWR4DosePEP.pdf*

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

ANNUAL REPORTS: Rabies;Tuleremia
EPIDEMIOLOGY MANUAL: Hansen's Disease Form; Norovirus-Long Term Care Facility
HEALTH CARE ASSOCIATED INFECTIONS: MRSA Toolkit; SSI Toolkit; Surgical Care Improvement Project; *Clostridium difficile* Toolkit; Collaboration Cookbook; CLABSI Toolkit; CAUTI Toolkit
HEPATITIS: Hepatitis C Workshop
INFLUENZA: Weekly Report
LOUISIANA MORBIDITY REPORT: Indices 1987,1988, 1989
SPECIAL STUDIES: West Nile Virus Transmission via Organ Transplantation and Blood Transfusion - Louisiana, 2008 - CDC/MMWR
VETERINARY INFORMATION: Microbiological Makeup of Common Veterinary Infections, First Quarter, 2010 - Canine and Equine; Rabies PEP - MMWR 3/19/10

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feeding promotion, SIDS risk reduction and safe sleep education and access to medical homes.

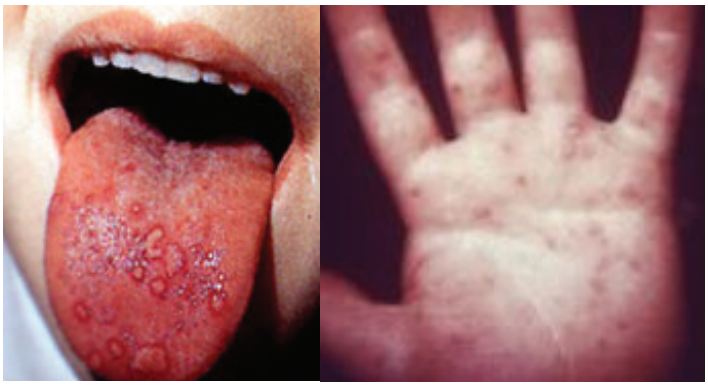
The unique advantage of the PPOR approach is that public health leaders can see mortality rates paired with potential solutions based on data from each region. Results indicate that important regional differences exist in the occurrence of fetal and, infant mortality. Effective solutions will depend on tailoring programs and interventions to the greatest needs within each region to reduce fetal and, infant deaths across Louisiana.

For more information, please contact Dr. Kieltyka at (504) 568-3511 or email *lyn.kieltyka@la.gov*.

(Hand Food and Mouth Disease ... Continued from page 1)

mostly in the summer and early fall. The incubation period for HFMD is 3 to 6 days. Illness usually presents suddenly as a mild fever, sore throat and discrete papulo-vesicular lesions that appear on the tonsils, buccal surface of the cheeks, the gums and the sides of the tongue as well as on the palms, fingers and soles. The lesions can progress to small ulcers that typically heal in 7 to 10 days (Figure).

Figure: HFMD ulcers in the mouth and on the hand



Photograph - CDC

The virus responsible for HFMD can be found in the nose and, throat discharges during the acute stage of illness therefore, aerosol spread of the virus is limited to patients with acute respiratory symptoms. The virus can also be found in the feces. Since fecal viral shedding can continue for several weeks or months after onset of symptoms, fecal-oral transmission can last a long time.

Preventing transmission of HFMD is challenging because there can be shedding of the virus while the person is asymptomatic. The best way to prevent the spread of HFMD is to properly dispose of nose and throat discharges that are infectious, wash hands promptly after handling nose and throat discharges and, after using the bathroom.

HFMD is not a reportable condition. Small outbreaks occasionally occur in day care settings; these outbreaks along with sporadic cases are occasionally reported. In day care settings, exclusion of the infected child is not recommended or practical for the reasons mentioned above (viral shedding while asymptomatic, continued viral shedding in feces for a prolonged period of time). Teachers and caregivers are encouraged to teach children to cover their mouths and, noses with a tissue when sneezing, dispose of tissues and, wash hands immediately. As always, teach children good hand washing practices, especially after using the bathroom. Teachers and caregivers should practice good hand washing techniques after changing diapers and, cleaning children's noses. Children should be excluded from day care only if, while tending to the ill child, the caregivers are not able to care for the other children in the day care. There is no specific treatment for HFMD. For mild cases, treatment is intended to ease symptoms, relieving fever, headache and malaise.

HFMD is spread from person to person; animals do not play a role in the transmission of the virus. HFMD is often confused with FMD also known as Hoof and Mouth Disease, a disease which almost exclusively affects animals and, mainly affects cloven-hooved mammals such as sheep, goats, deer, swine, water buffalo and cattle.

FMD is a very contagious disease caused by a virus that is a member of the Aphthovirus genus of the family Picornaviridae. The virus can be spread from animal to animal by direct contact, indirect contact and, via fomites. The virus causes lesions that lead to more severe health problems for the animal. The disease affects many different species of animals, spreads fast and, is hard to control. Herds of livestock have to be slaughtered to stop the disease from spreading which makes FMD very destructive and, is thought to be the most economically damaging livestock disease.

The disease is known to be present in areas of South America, Africa, Asia and, in Europe but, there have been no documented cases of FMD in the U.S. since 1929. Transmission to humans is very rare but when it happens, it presents as an influenza-like illness with the development of lesions. Even though the disease is not a public health threat, the economic impact of the disease on humans cannot be denied.

For references or more information, contact Erin Delaune at (504) 219-4622 or email erin.delaune@la.gov.

Louisiana Fact

The first book to be printed in the Louisiana territory was in French.* 'Medicaments et Précis de la Méthode de M. Masdevall' Docteur Médicin du Roi D'Espaygne Charles IV Pour Guerir Toutes les Maladies, Épidémiques, Putrides, Et Malignes, Fièvres De Differents Genres, etc.' *was published in New Orleans in 1796.*

The work, on the cure of epidemic and endemic fevers, had as one of its topics, malaria and the use of the Cinchona bark (which contains quinine).

Excerpted from 'The Rudoph Matas History of Medicine in Louisiana' - *Vol. 1, Duffy, 1958*

** As far as binding, size and number of pages being considered*

Table. Communicable Disease Surveillance, Incidence by Region and Time Period, January-February, 2010

DISEASE		HEALTH REGION 1	2	3	4	5	6	7	8	9	TIME PERIOD Jan-Feb 2010	Jan-Feb 2009	Jan-Dec Cum 2010	Jan-Dec Cum 2009	Jan-Dec % Chg*
Vaccine-preventable															
Hepatitis B	Cases	3	1	0	1	0	0	2	2	1	10	10	10	10	NA*
	Rate[1]	0.3	0.2	0	0.2	0	0	0.4	0.6	0.3	0.2	0.2	0.2	0.2	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	0	NA*
Rubella		0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Pertussis		0	1	0	0	0	0	4	0	2	7	19	7	19	-63.2
Sexually-transmitted															
HIV/AIDS	Cases[2]	31	17	5	3	7	7	7	6	4	87	222	87	222	-60.8
	Rate[1]	3.1	2.9	1.3	0.6	2.5	2.3	1.4	1.7	0.9	2	5.1	2	5.1	NA*
Chlamydia	Cases[3]	624	371	192	384	149	258	504	271	183	2936	5154	2936	5154	-43.0
	Rate[1]	77.3	57.7	48.6	66.4	52.3	86.0	94.5	78.1	35.1	66.6	116.8	66.6	116.8	NA*
Gonorrhea	Cases[3]	212	88	55	110	38	64	200	107	38	912	1737	912	1737	-47.5
	Rate[1]	26.3	13.7	13.9	19.0	13.3	21.3	37.5	30.8	7.3	20.7	39.4	20.7	39.4	NA*
Syphilis (P&S)	Cases[3]	10	4	2	12	3	2	14	11	5	63	154	63	154	-59.1
	Rate[1]	1.2	0.6	0.5	2.1	1.1	0.7	2.6	3.2	1.0	1.4	3.5	1.4	3.5	NA*
Enteric															
Campylobacter	Cases	1	3	1	13	0	0	3	2	4	27	12	27	12	125.0
Hepatitis A	Cases	1	0	0	0	0	0	0	0	0	1	2	1	2	NA*
	Rate[1]	0.1	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Salmonella	Cases	10	10	8	19	3	2	4	6	11	73	75	73	75	NA*
	Rate[1]	1.0	1.8	2.1	3.7	1.1	0.7	0.8	1.7	2.9	1.7	1.7	1.7	1.7	NA*
Shigella	Cases	1	0	1	1	0	0	1	11	0	15	56	15	56	-73.2
	Rate[1]	0.1	0	0.3	0.2	0	0	0.2	3.1	0	0.3	1.3	0.3	1.3	NA*
Vibrio cholera	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Vibrio, other	Cases	0	0	0	0	0	0	0	0	0	0	1	0	1	NA*
Other															
H. influenzae (other)		1	0	1	3	0	0	2	0	0	7	4	7	4	NA*
N. Meningitidis		1	0	0	0	1	1	0	1	1	5	7	5	7	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.

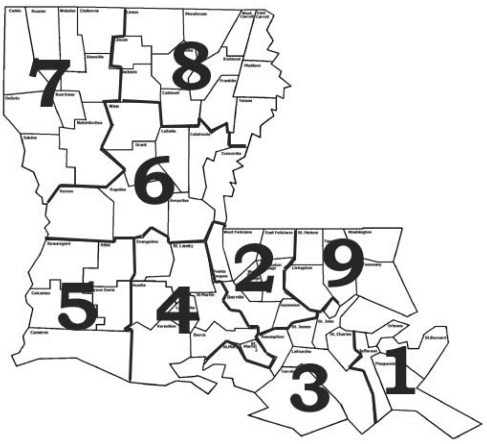
Table 2. Diseases of Low Frequency (January-February, 2010)

Disease	Total to Date
Legionellosis	1
Lyme Disease	0
Malaria	0
Rabies, animal	2
Varicella	18

Table 3. Animal Rabies (January-February, 2010)

Parish	No. Cases	Species
Lafayette	2	Skunk

Figure. Department of Health and Hospitals Regional Map



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Sanitary Code - State of Louisiana
Part II - The Control of Diseases

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)
- 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 co

- 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)[3]
- Listeria
- Lyme Disease
- Lymphogranuloma Venereum[1]
- Psittacosis
- Rocky Mountain Spotted Fever (RMSF)
- *Staphylococcus Aureus*, Methicillin/Oxacillin Resistant [(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*, 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 (All ages)[5]
- Complications of Abortion
- Congenital Hypothyroidism[4]
- Galactosemia[4]
- Hemophilia[4]
- Heavy Metal (Arsenic, Cadmium, Mercury) Exposure and/or Poisoning (All ages)[5]
- Lead Exposure and/or Poisoning (All ages)
- 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 Confidential Disease Case Report forms (2430), facsimile (504) 219-4522, telephone (504) 219-4563, or 1-800-256-2748) or web based at *https://ophrdd.dhh.state.la.us.*

[1]Report on STD-43 form. Report cases of syphilis with active lesions by telephone.
[2]Report on CDC72.5 (f.5.2431) card.
[3]Report to the Louisiana Genetic Diseases Program Office by telephone at (504) 219-4413 or facsimile at (504) 219-4452.
[4]Report to the Louisiana HIV/AIDS Program: see www.hiv.dhh.louisiana.gov for regional contact information, or call 504-568-7474.
[5]Report to the Section of Environmental Epidemiology & Toxicology: www.seet.dhh.louisiana.gov or 888-293-7020.

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