Louisiana Morbidity Report

Louisiana Office of Public Health - Epidemiology Section P.O. Box 60630, New Orleans, LA 70160 (504) 568-5005

November-December 1997

Volume 8 Number 6

Fire Deaths and Injuries

During 1988 there were 552,500 residential fires in the United States, which killed over 5000 persons and injured an additional 20,000. Although residential fires were only one quarter of all fires, they were responsible for three-quarters of all fire-related injuries and more than three-quarters of fire-related deaths. While during recent years the death rate from residential fires in the United States as a whole has been less than two per 100,000 population, the death rate in the Southeastern US has been between three and five per 100,000. In Louisiana for the years 1986-1994 the rate of deaths from fire and burn injuries was 3.2 per 100,000. Sixty four percent (41/64) of Louisiana's parishes are at or above the 75th national percentile for fire and burn deaths, and 25% (16/64) are at or above the 90th percentile (Figure).

Groups known to be at greater risk of death from fire include young children, the elderly, the poor, minorities and rural populations. Cigarette use, alcohol consumption, improper use of alternative heating systems, and residing in mobile homes are considered risk factors. Louisiana mortality data for the years 1993-1996 show that rural fire deaths represented an average of 52% of all fire deaths, while only 32% of the state's population is rural. Similarly, fire deaths among those over age 65 during these four years accounted for an average of 34% of all fire deaths, while only 11% of the state's population is over 65.

Effective prevention strategies for fire and burn injuries include functional smoke detectors and sprinkler sys-

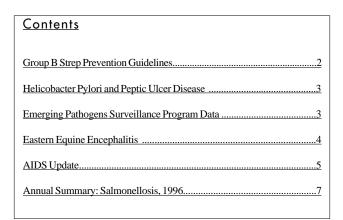
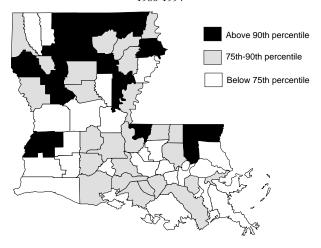


Figure: Rates of fire and burn deaths compared to national percentiles, 1986-1994



tems. Smoke detectors, which have been on the market since 1970, have been proven during the past two decades to reduce the risk of both death and injury from residential fires. Persons in houses with smoke detectors are half as likely to die in a fire as those in houses without detectors.

Simply having a smoke detector in the house, however, is not sufficient to reduce the risk of injury or death from fire; detectors must be properly installed and maintained in order to be effective. It is recommended that smoke detectors be installed outside each sleeping area and on every level of a house, tested monthly, and that the battery should be changed annually in order to guarantee that the detector is functioning.

Behavioral Risk Factor Surveillance System (BRFSS) data on smoke detector prevalence was collected in Louisiana in 1991 and 1992, and data on detector maintenance was collected in 1995. An average of 74% of respondents reported having a working smoke detector. Non-white respondents reported fewer working detectors than did white respondents. Approximately two thirds of respondents with detectors reported that they had not checked their detectors in the last month, as recommended, and one third of respondents reported that they had not checked their detectors in the last year.

Clinicians have an important role to play in promoting appropriate smoke detector use. Counseling about the need for detectors and the need to maintain them can be effective in changing patients' behavior. In particular, clinicians who (Continued on next page)

Salmonellosis Outbreak (Cont.)

work with groups at high risk for fire and burn injuries, such as children, the elderly, the poor and minorities, should consider including counseling about fire safety in their routine work.

Beyond education by clinicians, it is not clear what is the best way to increase the prevalence of functional smoke detectors in the community. Interventions which have been tried include community fire safety education campaigns about the need to install detectors, giving out discount coupons or vouchers for free detectors, giving out detectors themselves, and installing detectors. However, some installed detectors do not function because of failure to replace batteries when they run down, removal of batteries for other uses, or deliberate disabling of smoke detectors. In recent years the development of lithium-powered detectors has overcome some of these barriers, since the lithium batteries last 10 years, cannot be easily removed, and cannot be used for other purposes. However, the cost of lithium detectors is three times that of conventional detectors. The Injury Research and Prevention Program is surveying state residents to learn more about the barriers to the acquisition and maintenance of smoke detectors, so that innovative programs to overcome these barriers can be devised.

Group B Strep Prevention Guidelines

Group B streptococcal (GBS) disease is the leading bacterial infection associated with illness and death among newborns in the United States. In infants, GBS disease is characterized as either early-onset (i.e., occurring in infants <7 days of age) or late-onset (i.e., occurring in infants ≥7 days of age). Disease in infants usually occurs as bacteremia, pneumonia, or meningitis. Approximately 25% of the cases of neonatal GBS disease occur in premature infants. The case-fatality rate for GBS disease in newborns is approximately 5%-20%.

From 10% to 30% of pregnant women are colonized with GBS in the vaginal or rectal area. Approximately 1% -2% of infants born to colonized women will develop early-onset invasive GBS disease. However, early-onset GBS disease can be prevented by targeted use of antimicrobial prophylaxis after onset of labor or membrane rupture.

Guidelines to prevent GBS disease have been developed by CDC and representatives of the American college of Obstretricians and Gynecologists and the American Academy of Pediatrics. The recommendations were revised from draft recommendations published in 1995 and include the option of use of either of two different prevention strategies: One which uses routine cultures of mothers at 35-37 weeks of gestation and one which does not use prenatal cultures. A summary of these strategies is as follows:

GBS Prevention Strategy 1: Using prenatal culture at 35-37 week gestation:

Intrapartum antibiotic prophylaxis is recommended for women with any of the following:

- Previous infant with invasive GBS disease.
- GBS bacteriuria during this pregnancy.
- Delivery at < 37 weeks gestation.
- Positive rectal or vaginal culture for GBS at 35-37 weeks.
- Results of GBS culture at 35-37 weeks unknown and either 1) intrapartum fever or 2) membrane rupture for ≥ 18 hours.

GBS Prevention Strategy 2: Without use of prenatal culture.

Intrapartum antibiotic prophylaxis is recommended for women with any of the following:

- Previous infant with invasive GBS disease.
- GBS bacteriuria during this pregnancy.
- Delivery at < 37 weeks gestation.
- Intrapartum fever.
- Membrane rupture for ≥ 18 hours.

Note that the two strategies are very similar, and that regardless of which strategy is used, intrapartum prophylaxis is recommended for all women with GBS bacteriuria, all women with a previous infant with GBS disease and all women delivering at < 37 weeks gestation.

The recommended antibiotic regimen for intrapartum prophylaxis is penicillin G 5 million units intravenously

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Ampicillin is an acceptable alternative, and clindamycin is recommended for patients allergic to penicillin. Routine use of prophylactic antimicrobials for infants born to mothers who received intrapartum prophylaxis is not recommended, however, empiric antibiotics are recommended for infants showing signs of sepsis and empiric antibiotics should be considered for infants with gestational age less than 35 weeks or infants for whom the mother received less than 4 hours of intrapartum antibiotics.

The complete recommendations, including algorithms to follow for each strategy, are available from the Epidemiology Section by calling (504) 568-5005.

Helicobacter Pylori and Peptic Ulcer Disease

Peptic ulcer disease is the primary reported cause of death in approximately 6,500 persons in the U.S. each year. An estimated 25 million Americans suffer from peptic ulcer disease. Before 1982, when the bacterium *Helicobacter pylori* was discovered, spicy food, acid, stress, and lifestyle were considered the major causes of ulcers. *H. pylori* is a spiral shaped bacterium that is found in the gastric mucus layer or adherent to the epithelial lining of the stomach. It is now felt that *H. pylori* causes more than 90% of duodenal ulcers and more than 80% of gastric ulcers. It also causes chronic gastritis in adults and children. Infected persons have a 2- to 6-fold increased risk of developing gastric cancer and mucosal-associated-lymphoid-type lymphoma.

It is not known how *H. pylori* is transmitted or why some patients become symptomatic while others do not. The bacteria are most likely spread from person to person through fecal-oral or oral-oral routes. Possible environmental reservoirs include contaminated water sources. Iatrogenic spread through contaminated endoscopes has been documented but can be prevented by proper cleaning of equipment.

H. pylori infection can be diagnosed with serologic tests, a breath test using radiolabeled urea, or endoscopy. Appropriate antibiotic regimens can successfully eradicate the infection in most patients, with complete resolution of mucosal inflammation and a minimal chance for recurrence of ulcers. Eradication rates range from 70% to 90% depending on the regimen used. Currently, five *H. pylori* treatment regimens are approved by the FDA (Table).

Persons with active gastric or duodenal ulcers or documented history of ulcers should be tested for *H. pylori*, and if found to be infected, they should be treated. To date, there has been no conclusive evidence that treatment of *H. pylori* infection in patients with non-ulcer dyspepsia is warranted. Treatment recommendations for children have not been formalized.

CDC has established an *H. pylori* information line for physicians and patients. The toll-free number is 1-888-MyUlcer.

Table: FDA -approved treatment options

1. Omeprazole 40mg QD + clarithromycin 500mg TID x 2 wks, then omeprazole 20mg QD x 2 wks

-OR-

2. Ranitidine bismuth citrate (RBC) 400mg BID + clarithromycin 500mg TID x 2 wks then RBC 400mg BID x 2 wks

-OR-

3. Bismuth subsalicylate (Pepto Bismol®)
525mg QID + metronidazole 250mg
QID + tetracycline 500mg QID* x 2 wks
+ H2 receptor antagonist therapy as
directed x 4 wks

-OR-

4. Lansoprazole 30mg BID + amoxicillin 1g BID + clarithromycin 500mg BID x 14 days

-OR-

5. Lansoprazole 30mg TID + amoxicillin 1g TID x 14 days**

*Although not FDA approved, amoxicillin has been substituted for tetracycline for patients in whom tetracycline is not recommended.

**This dual therapy regimen has restrictive labeling. It is indicated for patients who are either allergic or intolerant to clarithromycin or for infections with known or suspected resistance to clarithromycin.



Emerging Pathogens Surveillance Program aggregate laboratory data from selected hospitals in Louisiana, January - June, 1997

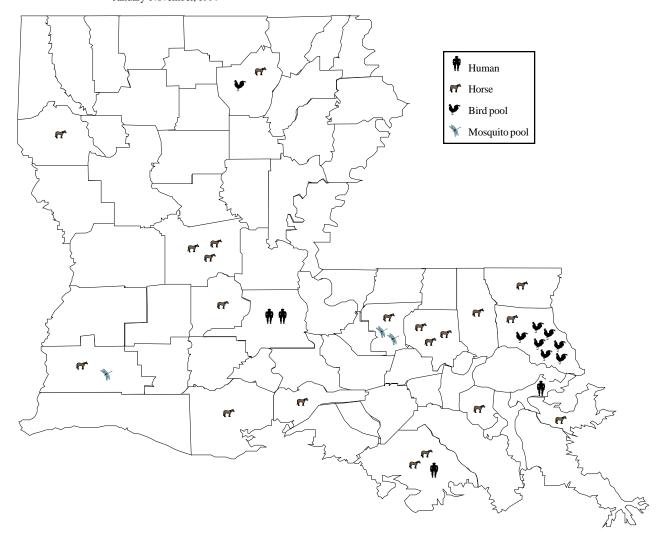
State	Penicillin resistant Streptococcus pneumoniae	Methicillin resistant Staphylococcus aureus	Vancomycin resistant Enterococcus species
#Resistant isolates	138	2185	226
Total isolates	837	7505	5757
% Resistant	16%	29%	4%

Eastern Equine Encephalitis

Four cases of human eastern equine encephalitis (EEE) have been reported thus far in 1997. One case was reported in a 42 year old white female from Terrebonne parish with onset on September 5th. Two cases were reported in white female sisters from St. Landry parish; one child was 2 years old with onset on September 10th and the other child was 10 months old with onset on September 15th. The fourth case was in a 22 year old white female from Orleans parish, with onset date of November 10th (Figure). Twenty horses have been reported with eastern equine encephalitis since July, 1997, and eight (8) positive bird pools have also been reported. The majority of the bird pools were from St. Tammany parish. One mosquito pool positive for eastern equine encephalitis was identified in Calcasieu parish and two positive mosquito pools were identified in East Baton Rouge parish.

Since Louisiana has a significant mosquito population and mild temperatures, it is likely that we will continue to see sporadic cases of eastern equine encephalitis. Most infections are asymptomatic. Mild cases often occur as febrile headache or aseptic meningitis and occasionally very severe cases may occur. EEE has one of the highest mortality rates among all of the arthropod-borne encephalitides. Surveillance of seasonal mosquito-avian activity as an ongoing process helps to guide control measures.

Figure: Eastern equine encephalitis (EEE) virus activity, January-November, 1997



AIDS UPDATE HIV Incidence in a New Orleans STD Clinic

Data from AIDS case reporting and seroprevalence surveys provide useful information to monitor the impact of the AIDS epidemic. However, in order to most effectively target prevention resources, it is useful to have knowledge of current HIV transmission patterns. Estimating HIV incidence (the rate of new HIV infections) in a high-risk population allows the identification of those segments of the population at highest risk of acquiring HIV.

OPH is currently conducting a study of patients repeatedly tested for HIV at a New Orleans STD clinic to estimate the incidence of and risk factors for HIV infection. The clinic serves a population that is 67% male and 94% African-American. All clinic clients receive HIV counseling and are offered HIV testing unless the client has visited the clinic in the previous 90 days. This analysis includes all clients who visited the clinic between January 1990 and November 1997 and had at least two HIV tests.

A seroconverter is a person who had a documented negative HIV test and a subsequent positive HIV test during the study period. As shown in Table 1, 124 patients seroconverted during the study period for an overall incidence rate of .49/100 person-years (p-y) or .49% per year. Incidence rates were very similar in males (.50/100 p-y) and females (.45/100 p-y). The rate of new infection was highest in persons under age 20, and was also very high among clients aged 40 and over. Incidence was highest in 1991 and 1992 and appears to be decreasing in subsequent years.

Table 2 shows incidence rates associated with specific

Table 1: HIV Incidence in a New Orleans STD Clinic January 1990 – November 1997								
	No. of Converters	Rate/100 person-years						
	124	.49						
Sex								
Male	99	.50						
Female	25	.45						
Age								
<20	16	.77						
20-29	51	.38						
30-39	36	.55						
40+	21	.67						
Year								
1990	3.9	.41						
1991	17.7	.55						
1992	26.8	.60						
1993	24.9	.52						
1994	23.6	.51						
1995	15.0	.38						
1996	8.9	.33						

risk behaviors reported by the clients during their HIV counseling and testing sessions. Among males, incidence rates were very high among those who reported sex with other men (1.54/100 p-y) and among injection drug users (.94/100 p-y). Rates among heterosexual men who exchanged sex for money or drugs (but did not report injecting drugs or having sex with men) were higher than among heterosexual men who did not exchange sex. Among females, incidence rates were highest among women whose sex partners injected drugs (1.60/100 p-y). Many seroconverters had no acknowledged risk, reflecting either a lack of knowledge of their sex partner's HIV risk status or reluctance to report their own risk behaviors.

Table 3 presents incidence rates of selected population

Table 2: HIV Incidence by Risk Factor January 1990 - November, 1997										
No. of Rate/100 Converters person-years										
Males										
Men who have sex with men	21	1.54								
Injecting drug users	Injecting drug users 8 .94									
Exch. sex for money or drugs	26	.67								
No acknowledged risk	44	.32								
Females										
Injecting drug users	2	.87								
Sex partner of IDU 4 1.60										
Exch. sex for money or drugs	1									
No acknowledged risk	17	.36								

subgroups for two time periods, 1990-1993 and 1994-1997, reflecting evolving trends in new infections. Incidence rates in males have declined over the study period from .58/100 p-y to .40/100 p-y, largely due to a substantial decrease in incidence among men who have sex with men. Rates in females have increased over the period from .42/100 p-y to .48/100 p-y.

Despite an overall decline in HIV incidence in this population, very high rates of new infection continue to occur among female partners of injecting drug users, adolescents, and men who have sex with men. Risk behaviors either directly or indirectly associated with drug use accounted for over one third of all new infections (42/124). The incidence patterns and trends in this important sentinel population will be used to target prevention programs.

Table 3: Trends in HIV Incidence in a New Orleans STD Clinic								
Rate for 1990-1993 Rate for 1994-1997								
Male	.58	.40						
Men who have sex with m	nen 2.43	.62						
Female	.42	.48						
Total	.54	.42						

LOUISIANA COMMUNICABLE DISEASE SURVEILLANCE Nov.-Dec., 1997 PROVISIONAL DATA

Table 1. Disease Incidence by Region and Time Period HEALTH REGION

TIME PERIOD

						ILITER	11 1000						111111111111111111111111111111111111111	Dittob	
DISEASE		1	2	3	4	5	6	7	8	9	Nov. Dec. 1997	Nov. Dec. 1996	Cum 1997	Cum 1996	% Chg
Vaccine-preven H. influenzae	<u>itable</u>	1	0	0	0	0	0	0	0	1	2	0	16	6	+166.7
Hepatitis B	Cases Rate ¹	4 0.4	0.4	0.3	1 0.2	0.7	0	3 0.6	0.3	0.3	15 0.3	21 0.5	170 3.9	161 3.7	+5.6
Measles		0	0	0	0	0	0	0	0	0	0	0	, 0	0	
Mumps		0	0	0	0	0	0	1	1	0	2	5	17	24	-29.2
Rubella		0	0	0	0	0	0	0	0	0	0	0	0	1	-100
Pertussis		0	0	0	0	0	0	0	0	1	1	5	21	14	+50
Sexually-transi AIDS	mitted Cases Rate ¹	59 5.4	24 4.4	1 0.3	20 4.0	6 2.3	6 1.9	4 0.8	4 1.2	8 2.2	132 3.1	114 2.6	1029 23.9	1446 33.5	-29
Gonorrhea	Cases Rate ¹	530 51.0	188 33.1	184 48.8	212 41.1	148 55.2	62 20.3	462 91.3	189 53.8	110 28.6	2085 49.5	1387 32.9	10621 251.8	9294 220.2	+14.3
Syphilis(P&S)	Cases Rate ¹	24 2.3	9 1.6	11 2.9	$^{4}_{0.8}$	1 0.4	0	3 0.6	3 0.9	3 0.8	58 1.4	55 1.3	363 8.6	532 12.6	-31.7
Enteric Campylobacter		2	1	0	0	0	0	1	2	1	8	27	166	163	+1.8
Hepatitis A	Cases Rate 1	4 0.4	0.4	0	4 0.8	0	0.7	15 3.0	5 1.4	1 0.3	33 0.8	57 1.3	258 6.0	241 5.6	+7.1
Salmonella	Cases Rate	14 1.3	19 3.3	13 3.4	8 1.6	6 2.2	6 2.0	6 1.2	10 2.8	14 3.6	116 2.7	101 2.3	626 15.0	611 14.2	+2.5
Shigella	Cases Rate ¹	10 1.0	1 0.2	1 0.3	13 2.5	2 0.7	0	1 0. 2	1 0.3	0.5	35 0.8	52 1.2	168 3.9	563 13.0	-70.2
Vibrio cholera		0	0	0	0	0	0	0	0	0	0	0	0	1	-100
Vibrio, other		2	0	0	0	1	0	0	0	0	3	1	35	40	-12.5
N. Meningitidi	īs	0	0	0	0	0	0	0	0	0	0	8	49	66	-25.8
	Cases	86	14	6	15 N/A	6	7	10	13	19	176	182 N/A	406	420	-3.3

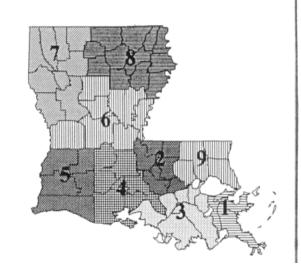
1 = Cases per 100,000

Table 2. Diseases of Low Frequency

Table 2. Discuses of Low I	requeries
Disease	Total to Date
Blastomycosis	6
E. coli 0157:H7	0
Histoplasmosis	3
Lead Toxicity	99
Varicella	8
Rocky Mountain Spotted Fever	4
Legionellosis	20
Lyme Disease	5
Malaria	1
Tetanus	2

Parish Table 3. Animal Rabies (Nov.-Dec. ,1997)
No. Cases Species

Sabine 1 Dog



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Annual Summary Salmonellosis - 1996

For 1996, six hundred and sixteen cases of salmonellosis were reported. The overall state case rate was lower than the national average (14.3 vs 17.2 per 100,000). Salmonella cases increased by 4.4% from 1995 and decreased by 4.4% from 1994 (Figure 1). Sex-specific rates were higher among males than females (14.9 vs 13.2 per 100,000, respectively). Fifty-six percent of the cases were reported in agegroups less than 10 years of age (Figure 2). Reported cases by month of onset peaked during the summer months from June through September (Figure 3). Parishes reporting the highest case rates per 100,000 include: Vermilion (37), Washington (32), Terrebonne (31) and Lincoln (30, Figure 4). Of the 32 serotypes identified, the most frequently reported isolates were S. typhimurium (105), S. newport (71), S. mississippi (46) and S. javiana (43; Table). One case of S. typhi was identified from E. Baton Rouge parish involving a child with a history of international travel. An outbreak of salmonellosis in the Ruston area was investigated in which a case-control study was performed and identified an association with a food establishment.

Table: Frequency of salmonella serotypes, 1994-1996

<u>SEROTYPE</u>	1994 # <u>Rank %</u>				1995 # Rank %			1996 # Rank %			
S. typhimurium	87	1	15		66	2	18	105	1	21	
S. newport	73	2	12		93	1	26	71	2	14	
S. mississippi	35	3	6		42	3	12	46	3	9	
S. javiana	21	5	4	ı	26	5	7	43	4	8	
S. heidelberg	19	7	3		17	6	5	20	5	4	
S. enteritidis	32	4	5		28	4	8	16	6	3	

Figure 1: Cases of salmonellosis by year, 1987-1996

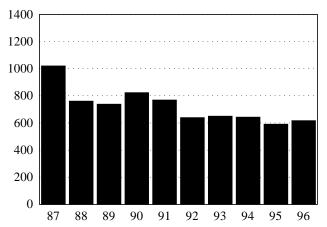


Figure 2: Cases of salmonellosis by age and sex, 1996

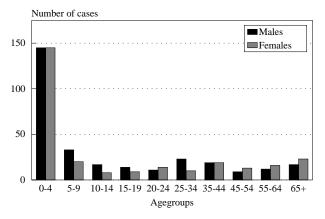


Figure 3: Cases of salmonellosis by month of onset, 1996

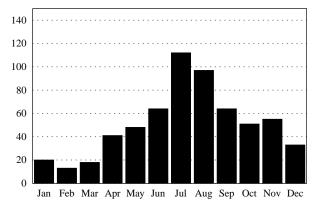
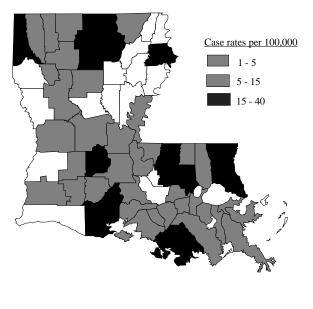


Figure 4: Rates of salmonellosis by parish, 1996



Louisiana Fact

Did you know that the first licensed pharmacist in the United States was from New Orleans? Louis Joseph Dufilho, Jr. was licensed in 1816 and sold among other things, love potions and other voodoo remedies, as well as fragrances.

LIST OF REPORTABLE DISEASES/CONDITIONS

Rubella (German measles)

Staphylococcus aureus

Salmonellosis

Shigellosis

Syphilis²

Tetanus

Tuberculosis4

Typhoid fever

Vibrio infections

Varicella (chickenpox)

(excluding cholera)1

Rubella (congenital syndrome)

(infection; resistant to methicillin/

(infection; resistant to penicillin)

oxacillin or vancomycin)

Streptococcus pneumoniae

REPORTABLE DISEASES

Acquired Immune Deficiency Hepatitis, Acute Syndrome (AIDS) Amebiasis

Arthropod-borne encephalitis

(Specify type)

Blastomycosis (HIV) infection3 Legionellosis Botulism1 Campylobacteriosis Lyme Disease

Lymphogranuloma venereum² Chancroid2

Chlamydial infection²

Cholera1 Cryptosporidiosis

Diphtheria Enterococcus (infection; resistant to vancomycin)

Escherichia coli 0157:H7 infection

Gonorrhea²

Haemophilus influenzae infection¹ Hemolytic-Uremic Syndrome

(A, B, C, Other)

Hepatitis B carriage in pregnancy

Herpes (neonatal)

Human Immunodeficiency Virus

Malaria

Measles (rubeola)1

Meningitis, other bacterial or fungal

Mumps

Mycobacteriosis, atypical4 Neisseria meningitidis infection1

Pertussis

Rabies (animal & man) Rocky Mountain Spotted

Fever (RMSF)

OTHER REPORTABLE CONDITIONS

Cancer

Complications of abortion Congenital hypothyroidism*

Galactosemia* Hemophilia* Lead Poisoning Phenylketonuria* Reye' Syndrome

Severe traumatic head injury** Severe under nutrition (severe anemia, failure to thrive) Sickle cell disease (newborns)*

Spinal cord injury** Sudden infant death syndrome (SIDS)

Numbers for reporting communicable diseases 1-800-256-2748 Local # 568-5005 FAX # 504-568-5006

îhis public health document was published at a total cost of . Seven thousand copies of this public document were published in this first printing at a . The total cost of all printings of this document, including reprints is . This document was published by 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.

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

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¹ Report suspected cases immediately by telephone. In addition, all cases of rare or exotic communicable diseases and all outbreaks shall be reported.

² Report on STD-43 form. Report cases of syphilis with active lesions by telephone.

³ Report on EPI-2430 card. Name and street address are optional but city and ZIP code must be recorded.

⁴ Report on CDC 72.5 (f. 5.2431) card.

^{*}Report to the Louisiana Genetic Diseases Program Office by telephone (504) 568-5070 or FAX (504) 568-7722.

^{**} Report to Injury Research & Prevention Section (504-568-2509).