Louisiana Morbidity Report

Louisiana Office of Public Health - Infectious Disease Epidemiology Section
P.O. Box 60630, New Orleans, LA 70160 (504) 568-5005
www.dhh.state.la.us/OPH/infectepi/default.htm

M. J. "Mike" Foster, Jr.
GOVERNOR

David W. Hood
SECRETARY

January-February 2002 **Volume 13 Number 1**

An Uninvited Guest at "Turkey Day"

Iris I. Merlos, MPH

On Thursday, November 15, 2001 the Infectious Disease Epidemiology Section (IDES) began an investigation of a possible foodborne outbreak at an elementary school in southeast Louisiana. The elementary school has approximately 900 students enrolled from pre-kindergarten to fifth grade. On Wednesday, November 14, 2001 the school held its annual Thanksgiving "Turkey Day". Lunch is served from 11am to 12:45pm, and divided into seven lunch periods in increments of fifteen minutes each. The school nurse noted that most of the ill staff and children had eaten lunch between 12:15pm and 12:45pm.

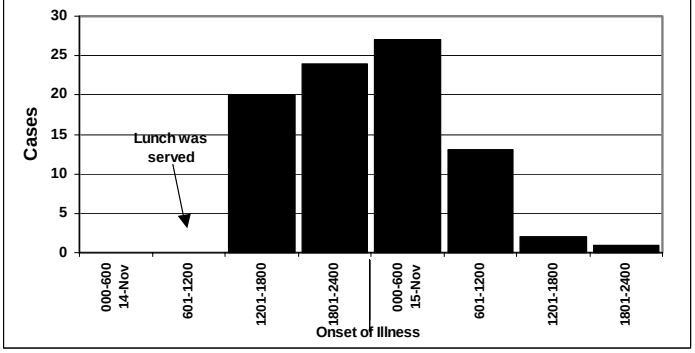
A case-control study was conducted and participants were selected in descending class order beginning with the fifth graders. Students were asked to complete the questionnaire either on their own with assistance from their teacher or by interview with an Epidemiology Team member. Faculty were given the questionnaire and asked to complete and return it by the end of the day. Ill faculty and students were asked to submit a stool specimen. The food handlers in the school cafeteria were interviewed regarding food preparation, storage and transport techniques, and any recent illness, while sanitarians conducted an inspection of the kitchen. Food samples were collected from the "Turkey Day" lunch and submitted for testing by the Louisiana Office of Public Health Bacteriology Lab.

A total of 143 questionnaires were obtained and information gathered included a food history recall of items eaten November 13 through November 14, 2001. A case was defined as having an onset of illness between November 14 and November 15, 2001, and exhibiting abdominal cramping. Eighty-seven patients (twenty faculty and sixty-seven students) met the case criteria (Table 1). The incubation periods among case-patients ranged from 1 to 33 hours with an average of 11 hours. (See epidemic curve/Figure 1). The median duration of illness was 24 hours (range 1-48 hours).

Table 1: Frequency of symptoms among cases

Symptom	Number	% of ill (n=87)
Abdominal Cramps	87	100
Diarrhea	74	85
Nausea	65	75
Chills	39	45
Headache	33	38
Fever	25	29
Vomiting	22	25
Bloody Diarrhea	5	6

Figure 1: Cases by Date and Time of Onset (N=87)



Data collected on food items consumed by case-patients was analyzed. Eating the turkey with gravy (86 of 87 cases versus 39 of 56 controls; OR= 37.49, 95% Confidence Interval [CI]= 4.82-291.78, p<. 05) and tea rolls (56 of 87 cases versus 14 of 56 controls; OR= 5.42, 95% Confidence Interval [CI]= 2.57-11.44, p<. 05) for lunch on November 14th was significantly associated with illness (Table 2). Other foods consumed during "Turkey Day", such as the cranberry sauce, cornbread dressing, and sweet potato pie had elevated odd ratios (OR=3.53, OR=3.63, and OR=3.85, respectively) (Table 2), but were not statistically significant.

The inspection report noted several violations with respect to storing, cooling, and heating of foods in the kitchen. The report also indicated that the walk-in cooler temperature was improperly held at 59°F, and that several cold foods were also in violation.

Five out of the seven stool specimens tested by the Louisiana Office of Public Health Bacteriology Lab were positive via PCR toxin test for *Clostridium perfringens.* Results of the food specimens indicated the presence of *Clostridium perfringens* in toxin-producing levels in the turkey with gravy. Furthermore, PCR methods indicated the *Clostridium perfringens* identified in the turkey with gravy matched the same DNA present in the stools.

(Continue on next page)

Contents

(An Unvited Guest at "Turkey Day" Cont.)

In summary, a gastroenteritis outbreak occurred at an elementary school in southeast Louisiana between November 14 and November 15, 2001. The illness affected both staff as well as students. Laboratory analysis on stool samples and food specimens, specifically the turkey with gravy, revealed contamination with *Clostridium perfringens*. The epidemiologic analysis suggests a strong association with the turkey with gravy served at Wednesday's "Turkey Day" lunch. The epidemiologic analysis also suggested an association with the tea rolls served with the "Turkey Day" lunch. It is believed that this association was probably due to the likelihood of the staff and students dipping the bread in the turkey with gravy. The results of this outbreak investigation are supported by both the pathogen identification and the epidemiology of *C. perfringens*. Almost all outbreaks are associated with inadequately heated or reheated meats and gravies. Spores survive normal cooking temperatures, germinate, and multiply during slow cooling, storage at ambient temperatures, and/or inadequate re-warming. In reviewing the turkey preparation, there were several opportunities in which the raw turkeys were subject to cooking and mishandling errors. The raw turkeys were partially cooked the day before serving, allowed to cool for an extended period of time, and then stored in the walk-in cooler at an ambient temperature. The next day the turkeys were inadequately re-heated and stored until serving. The monitoring of internal temperature of the turkeys was not conducted throughout the preparation process. The fact that most of the ill staff and students had eaten lunch during the last two lunch periods is further suggestive that failure to serve food items immediately and/or storing them improperly until serving may have contributed to this outbreak.

Table 2: Lunch food items for Wednesday, November 14, 2001

	Ate		Did Not Eat			
Food Item	Ill	Not Ill	Ill	Not Ill	OR	CI
Turkey with gravy	86	39	1	17	37.49	(4.82-291.78)
Cranberry sauce	47	14	40	42	3.53	(1.69-7.37)
Cornbread dressing	61	22	26	34	3.63	(1.79-7.35)
Broccoli spears	46	20	41	36	2.02	(1.01-4.03)
Garden salad	34	13	53	43	2.12	(1.00-4.52)
Tea Rolls	56	14	31	42	5.42	(2.57-11.44)
Sweet potato pie	71	30	16	26	3.85	(1.81-8.12)
Milk	50	30	37	26	1.17	(0.60-2.30)

Several recommendations were made to the school and included: the education of food handlers about the risks inherent in large-scale cooking, implementation of the use of thermometers to monitor temperatures throughout the cooking process, meat dishes should be served as soon as they are cooked, reheating of foods should be thorough and rapid, (internal temperature of at least 70°C/158°F, preferably 75°C/167°F or higher), meat and poultry should not be partially cooked one day and reheated the next, unless it can be stored at a safe temperature, and the use of fully cooked ready-to-eat turkeys should be implemented rather than raw turkeys that require in-depth preparation and may facilitate contamination.

Anthrax Testing in Louisiana

Nevin Krishna, MPH

On October 5, 2001, the Louisiana Office of Public Health, Infectious Disease Epidemiology Section received its first call requesting testing for anthrax.

The majority of samples submitted for testing originated in regions 1, 2 and 7 (Figure 1). These regions correspond with the most populated areas of the state.

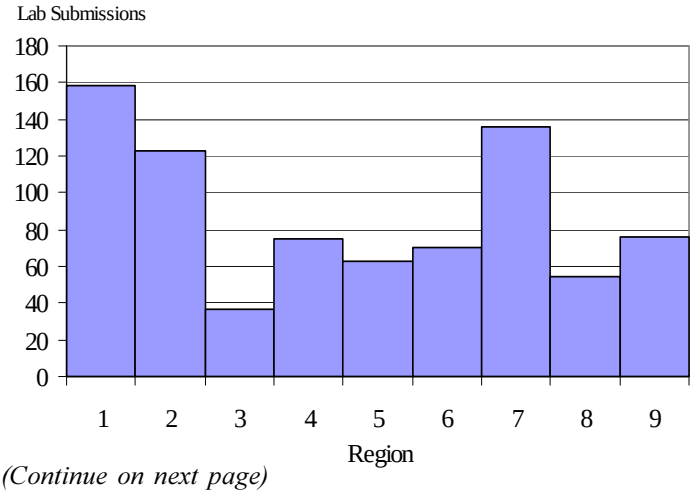
Samples submitted consisted mostly of envelopes that were deemed by the submitter to be suspicious. Many of the callers had indicated that they noticed a "powdery" substance. Thus far, no sample has tested positive for anthrax.

Samples submitted for testing go to one of three state labs located in Lake Charles, Shreveport and New Orleans. The samples are tested for anthrax first by culturing. If colonies form which are indicative of the presence of bacillus species, a DFA test is used to confirm the presence of *Bacillus anthracis,* the causative agent of anthrax. On average, samples can be run and results reported between 24 and 48 hours after receipt at the state lab.

Samples submitted peaked on 10/25/01 and have shown a steep steady decline (Figure 2).

This anthrax episode demonstrated how the Office of Public Health, working with the medical community, law enforcement and other parties, was able to respond adequately to bioterrorism. Lessons were learned on how to improve the system.

Figure 1: Number of samples tested by region (n=800)



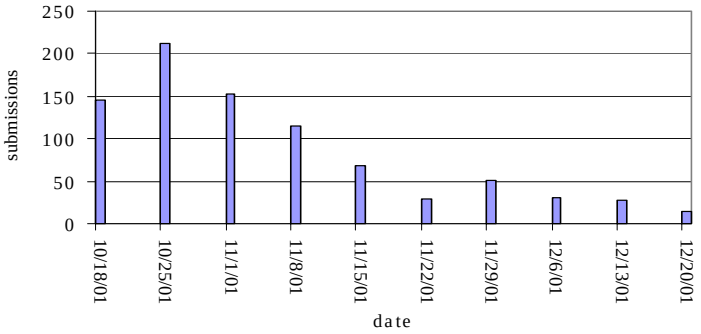
(Continue on next page)

Louisiana Morbidity Report
Volume 13 Number 1 **January-February 2002**

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	***Madeline McAndrew***
State Epidemiologist	***Raoult Ratard, MD MPH MS***
Editors	***Karen Kelso, RNC MS*** ***Susan Wilson, MSN***
Layout & Design	***Ethel Davis, CST***

Figure 2: Anthrax sample submissions, by week, 10/18/01-12/20/01



Health Effects Related to Pesticide Exposure

Michelle Lackovic, MPH
Joseph Sejud, MD JD MPH

The Office of Public Health, Section of Environmental Epidemiology & Toxicology (SEET) has maintained a statewide database of health-related pesticide exposure incidents since 1991. The passive surveillance system relies on pesticide exposure complaints forwarded to SEET by the Louisiana Department of Agriculture and Forestry (LDAF). Joint investigations of these cases involve the collection of environmental data (applicators' records, environmental samples, pesticide product labels, etc.) by LDAF and health data (e.g., patient interviews, medical records, toxicology literature) by SEET. Surveillance data provide specific information about the circumstances and effects of pesticide exposures in Louisiana. This enables SEET to assess the harms of both familiar and novel pesticides.

Pesticide Exposure and Toxicity

Knowing commonly used pesticides and their effects facilitates diagnosis and treatment of pesticide-related illness. Table 1 describes acute health effects of insecticides and herbicides commonly used in Louisiana. Apart from acute toxicity certain pesticides have chronic effects, including developmental, reproductive, allergenic, and carcinogenic. Insecticides account for most pesticide poisonings. Since the withdrawal of organochlorine insecticides (e.g., DDT, endrin, dieldrin, chlordane and lindane) from licensure, organophosphates have become the most widely used class of insecticides.

Organophosphate insecticides act by inhibiting cholinesterase, the enzyme responsible for breaking down the neurotransmitter acetylcholine at the synapse. Carbamate insecticides also act by this mechanism. Related to nerve gases, cholinesterase-inhibiting insecticides can be acutely neurotoxic, and are the class of insecticides most often implicated in human poisonings. Signs and symptoms of cholinergic overactivity, vomiting, diarrhea, incontinence, bronchorrhea, bronchoconstriction, and bradycardia, occur in severe cases, and can be fatal. Headache, fatigue, nausea, and weakness predominate in less severe cases. Delayed and long-term neurotoxic effects have also been attributed to organophosphate insecticides.

Pyrethrins and pyrethroids (e.g., cypermethrin) are derivatives of the chrysanthemum flower. These compounds have little systemic toxicity in humans. They can be allergens and sensitizers, however, resulting in asthma attacks and contact dermatitis.

Common herbicides come from the chlorophenoxy (e.g., 2,4-D), triazine (e.g., atrazine), phosphonate (e.g., Roundup®), and thiocarbamate (e.g., molinate) classes. Many are skin, eye and respiratory tract irritants. Acute systemic toxicity occurs only with ingestion of large doses. Thiocarbamate herbicides can be weak cholinesterase inhibitors. Some chlorophenoxy and triazine herbicides have been associated with elevated cancer rates among agricultural workers.

Screening for Pesticide Exposure

Many pesticide-related illnesses present with nonspecific symptoms and signs, common to other medical conditions. Including basic questions about occupational and household chemical exposures when taking a medical history, can help the healthcare provider recognize pesticide-related illness.

Table 1: Acute health effects of commonly used insecticides and herbicides

Pesticide Class/ Pesticide	Acute Health Effects
Insecticides:	
Organophosphates: Chlorpyrifos Malathion Methyl parathion	*Cholinesterase Inhibitor* MUDDLES: miosis, urination, diarrhea, diaphoresis, lacrimation, excitation of central nervous system (headache, malaise, dizziness), and salivation Primary irritant dermatitis
Carbamates: Aldicarb Carbofuran	*Cholinesterase Inhibitor* Health effects similar to organophosphate poisoning, although less severe and of shorter duration.
Pyrethroids: Cypermethrin Lambda cyhalothrin	Contact dermatitis (delayed hypersensitivity) Allergic respiratory reactions
Herbicides:	
Chlorophenoxy: 2,4-D	Irritating to eye, skin and mucous membranes Vomiting, diarrhea, mental status changes and metabolic acidosis in severe cases
Triazine: Atrazine	Irritating to eye, skin & mucous membranes
Thiocarbamate: Molinate	*Mild Cholinesterase Inhibition* *Eye, skin and respiratory tract irritation* Nausea, diarrhea, abdominal pain
Phosphonate: Glyphospate	Eye, skin and respiratory tract irritation

Table 2: Screening questions for pesticide exposure

- What kind of work do you do?
- Are you exposed to pesticides in the workplace?
- Do your symptoms improve when you are away from work?
- Are pesticides used in your home?
- (if an agricultural worker) Was the field sprayed shortly before or while you worked in it?
- (if a child) Are pesticides applied at school/daycare?

Pesticide Reporting

Louisiana is one of 30 states that requires physician reporting of pesticide-related illnesses. Physicians who treat a medical com-

plaint diagnosed as caused by pesticide poisoning must notify the Director of the Division of Pesticide and Environmental Programs at the Louisiana Department of Agriculture and Forestry of the poisoning (Louisiana Revised Statutes 3:3208).

How to report a case

- Via telephone within 24-hours of the diagnosis: (225) 925-3763
- In writing within 3 days of the diagnosis:
  Louisiana Department of Agriculture and Forestry
  Office of Agricultural and Environmental Sciences
  Director of Pesticide and Environmental Programs
  PO Box 3596, Baton Rouge, LA 70821-3596

Notification requirements include

1) name, address, and telephone of treating physician;
2) name, address, and telephone of patient(s);
3) date and location of treatment.

Conclusion

Pesticides can cause a variety of illnesses, overt or subtle. Neurologic, irritant and allergic effects are most common. Pesticide-related illness is likely under-diagnosed and under-reported. Effective epidemiologic surveillance of health-related pesticide incidents provides valuable information about the nature and prevalence of pesticide toxicity. Physician reporting is a cornerstone of these efforts.

Contact OPH-SEET at (504) 568-8537 or toll-free at (888) 293-7020 with questions or to obtain a copy of the Summary of Health-Related Pesticide Incidents Reported in Louisiana from October 1995 through September 2000, EPA's publication Recognition and Management of Pesticide Poisoning, and other pesticide-related information.

Tobacco Smoke Exposure in Children Under 5 Years of Age

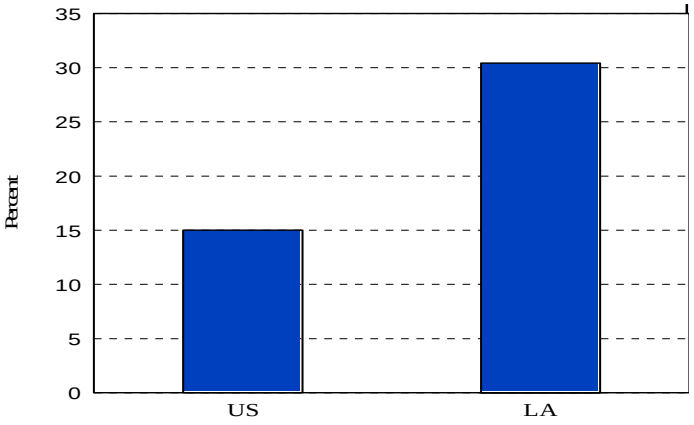
Srikant Nannapaneni MPH

For the year 2000, data from the Behavioral Risk Factor Surveillance System (BRFSS), estimates that approximately 357,483 Louisiana children under the age of 18 years were exposed to Environmental Tobacco Smoke (ETS) inside their homes. As shown in *Figure I* 30.4 % of adults in Louisiana reported living in a household in which at least 1 child under the age of 5 years was exposed to ETS inside the house as compared to a median of 15% for the US. This translates into 91,000 children under 5 years of age living in 180,000 households in Louisiana who were exposed to ETS.

According to 1999 (Louisiana Pregnancy Risk Assessment System) LaPRAMS data *(Courtesy: Louisiana LaPRAMS Working Group)*, 11% of the newborns were exposed to tobacco smoke and of the infants who were exposed, the average time of exposure was 5.5 hours per day. Results from the same survey show that one in five mothers (19%) of newborns reported that they smoked cigarettes during the 3-6 months after delivery. Higher rates were observed for White women, women with less than high school education, women on Medicaid, unmarried women and women under 20 years of age.

Children less than 5 years of age spend most of their time at home. Therefore, the most significant source of exposure to ETS for children is at home. Several studies have shown the harmful effect of environmental tobacco smoke exposure in children. According to the EPA, ETS is classified as a Group A carcinogen and can cause

Figure: Percent of adults who lived inhouseholds where at least one child under the age of five years was exposed to ETS, BRFSS, 2000



lung cancer in cases with prolonged exposure. Children exposed to ETS are at an increased risk for sudden infant death syndrome, acute lower respiratory tract infections, asthma induction and exacerbation, and middle-ear effusions.

Smoke-free environments are the most effective method for reducing ETS exposure among children as ventilation systems cannot filter and circulate air to eliminate secondhand smoke. Blowing smoke away from children, going into another room to smoke, or opening a window is ineffective in totally protecting children from the dangers of secondhand smoke.

The Louisiana Office of Public Health's Tobacco Control Program is addressing ETS exposure in the home through implementation of a statewide home-based ETS media campaign. The Tobacco Control Program also conducts tobacco-free school policy presentations across the state, using the regional & state PTA meetings as a venue. For further information about ETS and Tobacco Prevention, contact Ms. Dianne Hargrove-Roberson, Program Manager, LA Tobacco Control Program at (504) 568-7210.

Erratum: September-October 2001

In the article "BRFSS: Diabetes Prevalence in Louisiana – Indicators of Care," there were errors in the presentation of the data in the Table: "Indicators of Diabetic Care, BRFSS 2000." Find below the table with the corrected data.

Table: Indicators of Diabetic Care, BRFSS 2000

Indicator of Care	% Yes
Twice Daily Blood Glucose Measurement	24%
Annual Eye Exam	66%
Quarterly Foot Exam	28%
Bi-annual HbA_1C Measurement	59%
Annual Flu Shot	56%*
Pneumonia Vaccination	23%*

*BRFSS 1999

Sanitary Code
State of Louisiana
Chapter II
The Control of Disease

"It is hereby made the duty of every physician practicing medicine in the State of Louisiana to report to the State Health Officer, through the Health Unit of the parish or municipality wherein such physician practices, any case of suspected case of reportable disease which he is attending, or has examined, or for which such physician as prescribed. The report shall be made promptly at the time the physician first visits, examines or prescribes for the patient, and such report shall state the name, age, sex, race, usual residence, place where the patient is to be found, the nature of the disease and the date of onset." In addition to physician reporting, laboratories are required to report the results of tests which either confirm or suggest the occurrence of reportable diseases as specified by law. Additionally, Section 2:006 states "It shall be the duty of every osteopath, coroner, medical examiner, dentist, homeopath, infection control practitioner, medical records director, nurse, nurse midwife, nurse practitioner, pharmacist, physician assistant, podiatrist, social worker, veterinarian, and any other health care professional to report a confirmed case of reportable disease as specified in Section 2:003 in which he or she has examined or evaulated, or for which he or she is attending or has knowledge."

2:003 The following diseases 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
- Botulism
- Brucellosis
- Cholera
- Diphtheria
- Haemophilus influenzae (invasive infection)
- Measles (rubeola)
- Neisseria meningitidis (invasive infection)
- Plague
- Rabies (animal & man)
- Rubella (German measles)
- Rubella (congenital syndrome)
- Smallpox
- Tularemia
- Viral Hemorrhagic 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 encephalitis
- Aseptic meningitis
- Chancroid[1]
- E. Coli 0157:H7
- Hantavirus Pulmonary Syndrome
- Hemolytic-Uremic Syndrome
- Hepatitis A (acute illness)
- Hepatitis B (carriage in pregnancy)
- Herpes (neonatal)
- Legionellosis
- 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 work week after the existence of a case, suspected case, or a positive laboratory result is known.

- Acquired Immune Deficiency Syndrome (AIDS)
- Blastomycosis
- Campylobacteriosis
- Chlamydial infection[1]
- Cryptococcosis
- Cryptosporidiosis
- Cyclosporiasis
- Dengue
- EHEC serogroup non 0157
- EHEC + shiga toxin not serogrouped
- Enterococcus, Vancomycin Resistant; (VRE)
- Giardia
- Gonorrhea[1]
- Hansen Disease (leprosy)
- Hepatitis B (acute)
- Hepatitis C (acute)
- Human Immunodeficiency Virus (HIV)
- Listeria
- Lyme Disease
- Lymphogranuloma venereum[1]
- Psittacosis
- Rocky Mountain Spotted Fever (RMSF)
- Staphylococcus aureus, Methicillin/ oxacillin or vancomycin resistant (MRSA)
- Streptococcus pneumoniae (invasive infection; penicillin resistant (DRSP)
- Streptococcus pneumoniae (invasive infection in children < 5 years of age)
- Varicella (chickenpox)
- Vibrio infections (except cholera)

Other Reportable Conditions

- Cancer
- Complications of abortion
- Congenital hypothyroidism*
- Galactosemia*
- Hemophilia*
- Lead Poisoning*
- Phenylketonuria*
- Reye's Syndrome
- Severe traumatic head injury**
- Severe undernutrition (severe anemia, failure to thrive)
- Sickle cell disease (newborns)*
- Spinal cord injury**
- Sudden infant death syndrome (SIDS)

Case reports not requiring special reporting instructrions can be reported by Confidential Disease Case Report forms EPI-2430, facsimile (504-568-5006), phone reports (504-568-5005 or 1-800-256-2748), or electronic transmission.

[1]Report on STD-43 form. Report cases of syphilis with active lesions by telephone.

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

*Report to the Louisiana Genetic Diseases Program Office by telephone (505) 568-5070 or FAX (504) 568-7722.

**Report on DDP-3 form; preliminary phone report from ER encouraged (504) 568-2509. Information contained in reports required under this section shall remain confidential in accordance with the law.

LOUISIANA COMMUNICABLE DISEASE SURVEILLANCE
Nov - Dec 2001
PROVISIONAL DATA
Table 1. Disease Incidence by Region and Time Period

DISEASE	HEALTH REGION 1	2	3	4	5	6	7	8	9	TIME PERIOD Nov-Dec 2001	Nov-Dec 2000	Jan-Dec Cum 2001	Jan-Dec Cum 2000	% Chg
Vaccine-preventable														
H. influenzae (type B)	0	0	0	1	0	0	0	0	0	1	0	1	0	-
Hepatitis B Cases	6	0	0	0	0	0	0	0	0	6	7	115	135	-15
Rate[1]	0.6	0.0	0	0	0	0	0	0.0	0	0.14	0.2	2.7	3.1	
Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Mumps	0	0	0	0	0	0	0	1	0	1	0	2	5	-60
Rubella	0	0	0	0	0	0	0	0	0	0	0	0	1	-
Pertussis	1	0	0	0	0	0	0	1	0	2	2	11	21	-48
Sexually-transmitted														
HIV/AIDS Cases[2]	47	22	1	10	3	7	3	11	2	106	101	946	1163	-19.0
Rate[1]	4.7	3.8	0.3	1.9	1.1	2.3	0.6	3.1	0.5	2.5	2.3	21.6	23.2	
Gonorrhea Cases	513	174	59	139	71	95	468	151	148	1818	2018	12288	13265	-7.3
Rate[1]	49.4	30.6	15.6	26.9	26.5	31.1	92.5	43	38.4	42.13	47.8	291	314.0	
Syphilis (P&S) Cases	6	9	1	9	0	2	0	2	2	31	24	173	210	-17.6
Rate[1]	0.6	1.6	0.3	1.7	0	0.7	0	0.6	0.5	0.72	0.6	4	5	
Enteric														
Campylobacter	1	0	1	0	0	0	2	0	1	5	11	129	135	-4.4
Hepatitis A Cases	2	1	0	0	0	0	0	0	0	3	28	85	104	-18.3
Rate[1]										0.1	0.6	2.7	2.4	
Salmonella Cases	3	1	9	9	0	3	0	3	1	29	62	868	499	+42.5
Rate[1]										0.7	1.4	20.1	11.6	
Shigella Cases	12	3	3	0	0	0	0	0	1	19	33	250	283	-11.7
Rate[1]										0.4	0.8	5.8	6.6	
Vibrio cholera	0	0	0	0	0	0	0	0	0	0	0	0	3	-
Vibrio, other	1	0	0	4	0	0	0	0	0	2	1	27	30	-10
Other														
H. influenzae (other)	0	0	0	0	0	0	0	0	0	0	0	11	14	-21.4
N. Meningitidis	3	1	0	1	0	1	0	0	1	7	4	79	43	+45.6
Tuberculosis	89	12	5	13	4	3	13	15	15	174	130	281	331	-15.1

1 = Cases Per 100,000

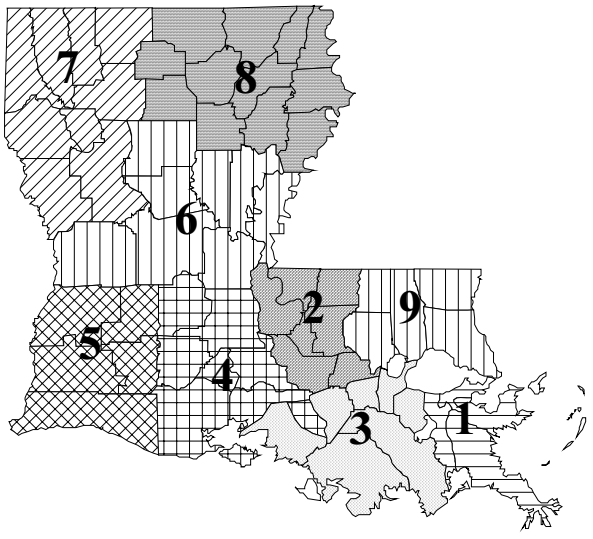
2=These totals reflect persons with HIV infection whose status was first detected during the specified time period. This includes persons who were diagnosed with AIDS at time HIV was first detected.

Table 2. Diseases of Low Frequency

Disease	Total to Date
Legionellosis	7
Lyme Disease	6
Malaria	6
Rabies, animal	9
Varicella	58

Table 3. Animal rabies (January-December)

Parish	No. Cases	Species
Acadia	2	Skunk
Grant	1	Skunk
Jackson	1	Skunk
Lafayette	2	Skunk
Natchitoches	1	Skunk
Ouachita	1	Bat
St. Mary	1	Bat



Annual Summary
Neisseria Meningitidis

For 2001, there were 78 cases of *Neisseria meningitides* infections reported to the Infectious Disease Epidemiology Section. This represents a 70% increase in the number of cases reported in year 2000 (Figure 1). The overall state case rate for Year 2001 is 1.8 per 100,000. Case rates by sex were higher for females than males, 2.2 vs 1.2 per 100,000 respectively. Age-specific case rate per 100,000 were highest in four age groups including: 0 – 4 years (5.0), 15 – 19 years (4.1), 75+ age group (3.5) and 10 – 14 years [2.6, Figure 2]. Sex-race specific rates per 100,000 were highest for Black females (2.5) and Black males (2.1), followed by White females (1.8) and White males (0.6). Of the total *N. meningitides* isolates (70%) serogrouped, Group C accounted for 44% of the serotypes identified, Groups B and Y (27%, each) and one Group A serotype identified. Twelve deaths were reported among the cases for which 75% of deaths occurred between 10 – 48 years of age. Cases had reported onsets throughout the year, however, more than half of the cases were reported in the early spring between January and April (Figure 3). Pulse Field Gel Electrophoresis (PFGE) showed that one Group C strain caused 8 cases including 4 deaths. This strain also caused two vaccine failures.

Comments: *N. meningitidis* is a leading cause of bacterial meningitis and sepsis in older children and young adults in the United States. Antimicrobial chemoprophylaxis of close contacts of persons who have sporadic meningococcal disease is the primary means for prevention of meningococcal disease in the United States. Close contacts include a) household members, b) day care center contacts, and c) anyone directly exposed to the patient's oral secretions (e.g., through kissing, mouth-to-mouth resuscitation, endotracheal intubation, or endotracheal tube management). The attack rate for household contacts exposed to patients who have sporadic meningococcal disease is an estimated four cases per 1,000 persons exposed, which is 500-800 times greater than for the total population. Because the rate of secondary disease for close contacts is highest during the first few days after onset of disease in the index patient, antimicrobial chemoprophylaxis should be administered as soon as possible (ideally within 24 hours after identification of the index patient). Rifampin, ciprofloxacin, and ceftriaxone are all 90%—95% effective in reducing nasopharyngeal carriage of *N. meningitidis* and are all acceptable alternatives for chemoprophylaxis.

Figure 1: Cases of meningococcal infection by year, 1992-2001

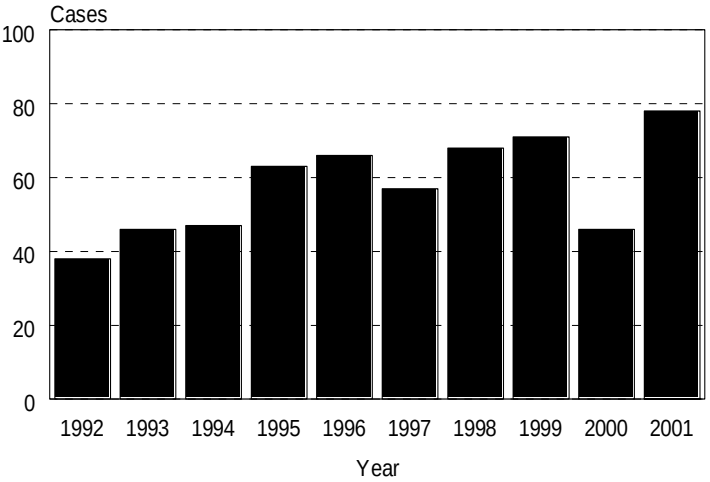


Figure 2: Cases of meningococcal infection by age group, 2001

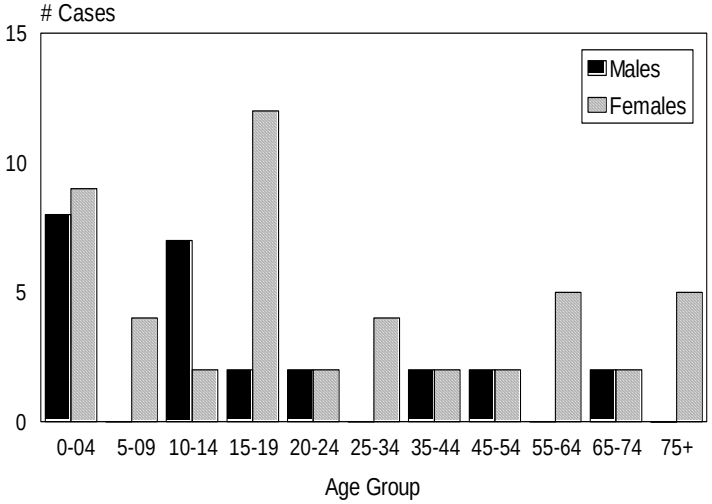
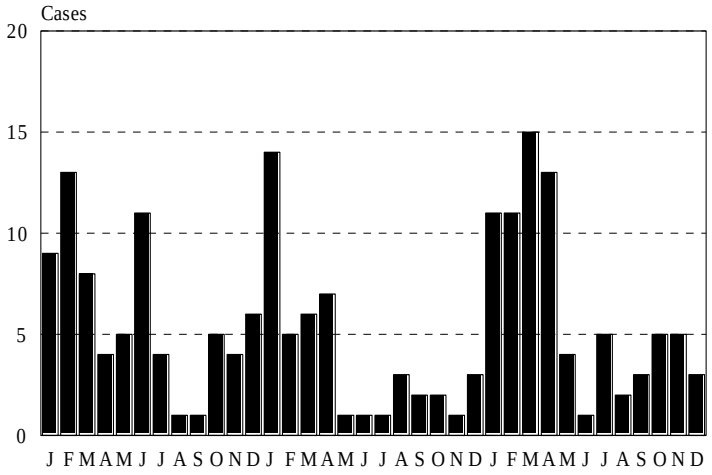


Figure 3: Cases of meningococcal infection by month of onset, 1999-2001



Louisiana Fact
The Great Louisiana Controversy
fumigating bananas to keep yellow fever out - April 1878

In April of 1878, a dispute arose between the board of health and the New Orleans fruit dealers. The board insisted that bananas be fumigated with sulphurous acid gas to keep yellow fever out. The fruit dealers complained that the bananas were discolored. The dealers complained to the governor, tried to get an exemption for their bananas and finally got an injunction against fumigating from a judge. The board convinced the judge that the city was in peril because of his injunction and fumigation resumed. Unfortunately, a short time after New Orleans was visited by one of the most devastating yellow fever epidemics. Fumigation of bananas was obviously not sufficient to keep the virus away.

Syndromic surveillance for Emergency Department

Syndrome		Rule out
Acute Respiratory Distress + Fever		
1-	+ No Cxray pneumonia	Anthrax
	+ widened mediastinum	
	+ no trauma	
	+ no hx of chronic disease	
2-	+ GI symptoms + hemoptysis	Plague
3-	+ Pulmonary edema + no hx of chronic disease	Ricin toxin
4-	+ Normal Cxray	Staph toxin B
Eruptive Fever		
5-	Vesiculo-pustular rash	Smallpox
6-	Hemorrhagic eruption	Hemorrhagic fever
7-Severe sepsis of unexplained etiology		Tularemia, Brucellosis
8-Acute bilateral descending flaccid paralysis		Botulism
9-Blistering syndromes		
10-unusual number of patients with similar symptoms unusual presentation of symptoms patients presenting with a similar set of exposures unexplained case of a previously healthy individual with infectious disease?		

OPH has developed a web based Syndromic Reporting Database combined with the communicable Reportable Disease Database. This reporting system includes the same security guarantees as the communicable disease system. The emergency departments are requested to report numbers of patients who meet the syndromic case definition and an identification number allowing OPH staff to follow up with the emergency department if necessary.

This surveillance system will be used to monitor number of suspected BT disease suspects and also acts as a constant reminder to ED staff.

Numbers for reporting communicable diseases

1-800-256-2748 Local # 568-5005 FAX # 504-568-5006

Web site: http://www.dhh.state.la.us/oph/infectepi/default.htm

This 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 cost of . 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

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