



# LOUISIANA MORBIDITY REPORT EPIDEMIOLOGY

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## SYPHILIS CASES INCREASE IN LOUISIANA

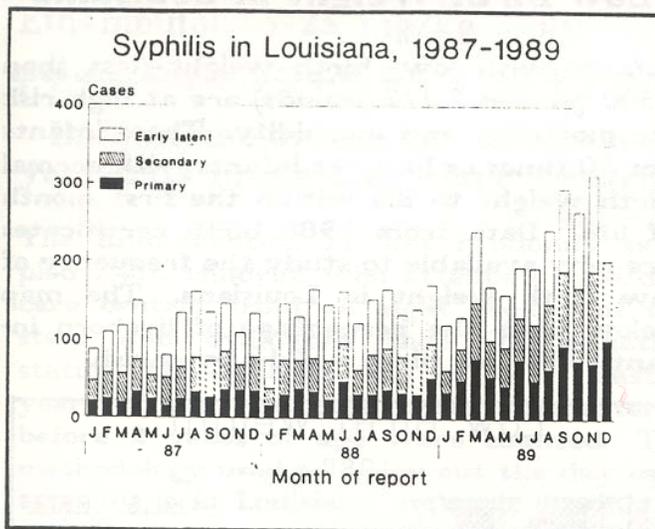
A sharp increase in reports of syphilis was seen in Louisiana in 1989 (figure). Primary and secondary syphilis cases were 75% higher in 1989 than in 1988, and more than twice the number reported in 1987. Provisional totals from the Centers for Disease Control show Louisiana in 1989 as having the fifth highest rate of syphilis of the 50 states.

reports of congenital syphilis (Louisiana Morbidity Report, September-October 1989).

Table 1. Rates\* of primary and secondary syphilis for selected parishes, 1987-1989

Parish	1987		1988		1989		% Change 1987-89
	Cases	Rate	Cases	Rate	Cases	Rate	
Orleans	279	52.3	468	87.7	846	158.6	+203
Jefferson	50	10.7	57	12.2	140	30.1	+180
E. Baton Rouge	106	27.6	120	31.2	184	47.9	+74
Rapides	16	11.7	16	11.7	76	55.8	+375

\* Cases per 100,000 population



Case rates by race and sex are shown in table 2. In 1987, before the increase began, rates were higher in blacks than in whites. The increase in reports from 1987 to 1989 also occurred primarily in blacks.

Table 2. Rates\* of primary and secondary syphilis by sex and race, 1987-1989

	1987		1988		1989	
	Cases	Rate	Cases	Rate	Cases	Rate
<b>Males</b>						
White	57	3.7	31	2.0	35	2.3
Black	418	63.8	501	76.4	914	139.4
<b>Females</b>						
White	28	1.8	10	0.6	26	1.7
Black	273	37.0	381	51.7	631	85.6
<b>Total</b>	783	17.4	925	20.7	1615	36.1

\* Cases per 100,000 population

The increase in reports occurred primarily in the larger parishes of the central and southeastern part of the state. Two-thirds of the increase from 1987 to 1989 could be accounted for Orleans Parish alone, and 95% of the increase could be accounted for by four parishes: Orleans, Jefferson, East Baton Rouge, and Rapides (table 1). In Orleans Parish the increase in adult syphilis has already been reflected in an increase in

It is unlikely that the increase has been caused by changes in reporting practices, since there has been no change in the syphilis surveillance system. Many other states in the U.S. have also seen rapid increases in syphilis in the last four years. In other areas, studies have indicated that the increase has been related to illicit drug use (particularly cocaine use) and associated prostitution. The fact that the increase in Louisiana has been most pronounced in

urban areas suggests that the same drug use - syphilis connection may be responsible for the increase in case reports here.

Studies from Africa and from this country have found that diseases such as syphilis that cause genital ulcers promote the transmission of HIV from infected persons to their contacts. This makes the syphilis problem a more serious public health concern.

Physicians should be aware of the syphilis increase and should serologically test all persons with genital lesions or in whom evidence of other sexually transmitted diseases is present. In certain situations, serologic screening of drug users, prostitutes and their contacts may be appropriate. The use of rapid RPR card tests can provide immediate results, so that infected persons can be identified and treated on the initial visit, before further sexual activity occurs.

### Invasive Streptococcal Infections and Toxic Shock-Like Syndrome

In the last year, physicians in other areas of the country have reported patients with invasive group A streptococcal infections accompanied by severe local tissue destruction and shock similar to that of the Toxic Shock Syndrome (Stevens et al, New England Journal of Medicine 321(1): 1, July 1, 1989). These patients have frequently been young, otherwise healthy persons. Besides having positive blood cultures for group A beta-hemolytic streptococci, the patients have developed such manifestations as myositis, fasciitis, hypotension, and renal failure. The mortality of this syndrome is approximately 25%. Reviews of the medical literature cannot clearly find similar cases in the past, so it appears that this may be a new disease.

The Epidemiology Section of OPH and the Centers for Disease Control are interested in hearing reports of patients with this syndrome in Louisiana. We are particularly interested in hearing of clusters of cases in group settings - such as in nursing homes, day care centers or families. Because of the severity of the disease, we may consider recommending penicillin prophylaxis for close contacts of cases. Call (504) 568-5005 to report cases or clusters.

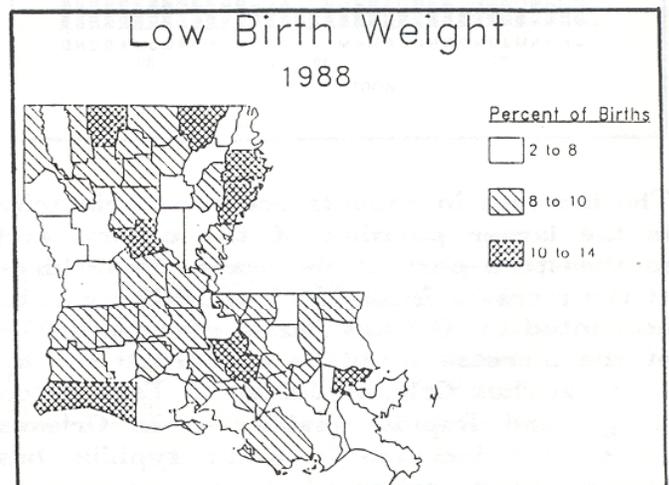
### ACIP Recommends Lower Age For HiB Conjugate Vaccines

The Centers for Disease Control's Advisory Committee on Immunization Practices (ACIP) has recently recommended that the age of immunization with the Hemophilus influenza type B conjugate vaccines be lowered from 18 months to 15 months. This new recommendation is based on the fact that approximately 7% of H influenza type B disease in children occurs in children 15-17 months of age, and the finding that conjugate vaccines have substantial immunogenicity in this age group.

Three different HiB conjugate vaccines are now licensed by the FDA. The newest, licensed in December 1989, uses meningococcal protein as the conjugate and is designated PRP-OMP. The others already licensed are the Diphtheria CRM Protein Conjugate (PRP-HbOC) and the Diphtheria Toxoid Conjugate (PRP-D). While PRP-OMP and PRP-HbOC produce higher antibody titers than PRP-D, it is too early to determine which of these vaccines have the greatest clinical efficacy.

### Low Birth Weight in Louisiana

Infants with low birth weight (less than 2500 gms or 5 1/2 pounds) are at high risk for mortality and morbidity. These infants are 40 times as likely as infants with normal birth weight to die within the first month of life. Data from 1988 birth certificates are now available to study the frequency of low birth weight in Louisiana. The map below plots the percentage of liveborn infants with low birth weight by parish.



**Comment:**

Infants are likely to be born with low weight if their mothers during pregnancy have inadequate health, nutrition, or prenatal medical care. Low birth weight is therefore a measure of both the basic health status of women and the effectiveness of the prenatal care system. Low birth weight is also a marker that predicts infant mortality.

The map of low birth weight by parish depends in some instances on small numbers of births. However, it can be used to identify areas of the state that may need to be targets of future efforts to improve the health status of pregnant women.



**NOTICE**

Correction to Louisiana Morbidity Report July/August 1989 "Drug Resistant Tuberculosis in Vermilion Parish"

Rifampin 600 mg daily  
 Pyrazinamide 15-30 mg/kg daily  
 Ethambutol 15-25 mg/kg daily



**Immunization Survey of Two-year-olds From Day Care Centers**

The Immunization Project randomly sampled 1,416 children who attended child/day care centers from all eight regions of the state and evaluated their immunization status. The children had to be at least 2 years of age and only doses administered before 2 years of age were counted. The methodology used to carry out the day care assessment in Louisiana makes it possible to estimate a true percentage of children statewide who receive vaccines before they are two years of age. Most of the children were 2, 3, and 4 years of age, with limited numbers of children older than 4.

The 1986 standard two-year-old survey gave every two year old in Louisiana an opportunity to be selected from all the 2 year old children in the state. The random sample was taken from the birth record on file in the state's Vital Record system. The

1989 retrospective survey, on the other hand, gave each identified day care center an opportunity to be selected. All children in selected centers were evaluated.

Comparative data from the retrospective survey and the most recent standard survey of two year old children are as follows:

	Retrospective Data 1989	Standard Survey 1986
Sample size	1,416	556
Vaccine Type		
DTP - 1	1,394 (98.5%)	553 (99.5%)
DTP - 2	1,381 (97.5%)	544 (97.85%)
DTP - 3	1,353 (95.6%)	524 (94.2%)
DTP - 4	996 (70.3%)	443 (80.0%)
Polio - 1	1,378 (97.3%)	553 (99.5%)
Polio - 2	1,369 (96.7%)	545 (98.05%)
Polio - 3	1,235 (87.2%)	493 (89.0%)
MMR	1,204 (85.9%)	510 (92.0%)

Children who were selected in the standard survey method ranged in age from 24-35 months; thus this was not a true 2 year old survey. When only vaccines given before 24 months are included, the data show levels of 65% for DTP, 65% for polio and 82% for MMR. These immunization levels are lower than those from the retrospective survey.

**New - Oral Typhoid Vaccine**

The Food & Drug Administration has approved an oral typhoid vaccine with significantly fewer side effects than the currently available injectable vaccine.

The new vaccine - called typhoid vaccine live oral Ty21a - is a live-bacterial vaccine in a coated capsule. The vaccine is prepared by growing Salmonella typhi in a nutrient medium. The bacteria are collected by centrifugation, dried and put into gelatin capsules.

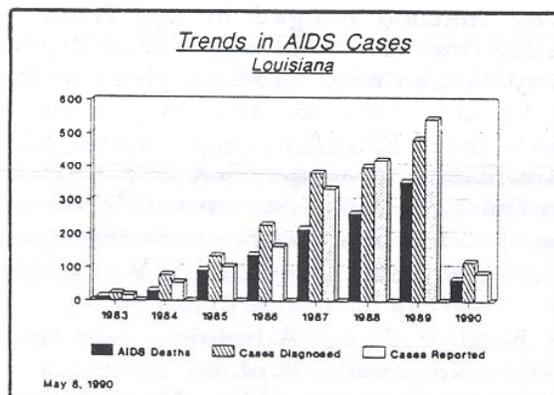
The drug is taken orally, one capsule on each alternate day (days 1, 3, 5 and 7) for a total of four capsules. A booster dose every four years is recommended if exposure to typhoid is continuous or repeated.

According to Dr. James Mason, HHS Assistant Secretary, clinical trials of the vaccine, involving more than half a million children and adults, were carried out in

Egypt, Chile, Indonesia, Switzerland and the United States. In most of the efficacy studies, the oral vaccine was shown to be of comparable efficacy to that previously reported for injectable typhoid vaccines without the severe side effects, such as fever.

This new vaccine was developed and is manufactured by the Swiss Serum and Vaccine Institute in Beine, Switzerland. It will be distributed by Berna Products Corp. of Coral Gables, Florida, as Vivotif Berna Vaccine. The toll free number is 1-800-533-5899.

To date, more than 30 million doses of vaccine have been distributed in over 30 countries. Post-marketing surveillance based upon reports sent back to the manufacturer has shown an overall adverse reaction rate of 1/100,000 doses administered. Reactions reported were mild, consisting primarily of skin rash and transient gastrointestinal disturbances.



## St. Gabriel Miscarriage Study Results Announced

In the fall of 1989 the Office of Public Health presented the results of a study of rates of miscarriage in St. Gabriel, Louisiana. The study authors concluded that the miscarriage rates were not elevated and that further study of miscarriages in the area was not warranted.\*

In 1987, the residents of St. Gabriel had expressed concern over what they perceived to be an elevated rate of miscarriage in their community and a possible relationship to air contaminants. In response to this concern, the Office of Public Health contracted with Tulane University School of Public Health to determine if the

rates of miscarriage were in excess of those expected on the basis of historical records or the results of other studies.

The investigation used various methods in trying to identify all miscarriages on the east bank of Iberville Parish over a five-year period. Volunteers were recruited by public notification, telephone survey, mail notification and community outreach. Non-volunteers were identified from hospital records. With all methods of ascertainment, 372 live births, 7 stillbirths and 69 miscarriages were identified; 54 were considered documented. For a miscarriage to be considered documented, medical records had to indicate a pregnancy with no subsequent live birth or the medical records of a hospital, physician or other health care provider had to indicate a fetal loss.

The documented miscarriage rate was 12.7% ± 1.6%, and the miscarriage rate using both documented and undocumented miscarriages was 15.7% ± 1.7%. Miscarriages among white women were relatively well ascertained, and the rate was not statistically significantly higher than expected, given the age structure of the pregnant white women. The observed age-specific rates for single pregnancies did not exceed the rates found in several comparable historical studies. Miscarriage rates for blacks were lower than rates for whites, but miscarriages among blacks were less well ascertained, and a firm conclusion could not be drawn on the basis of available data. However, the observed miscarriage rate for blacks was consistent with rates found in studies with similar ascertainment. The age-adjusted miscarriage rates were below the levels set out in the protocol as being elevated.

The investigation recommended that a model protocol be developed for future investigation of miscarriage rates, so that the results of different studies can be more easily compared.

In response to continued community concerns, the Office of Public Health is maintaining surveillance of miscarriage in the St. Gabriel area.

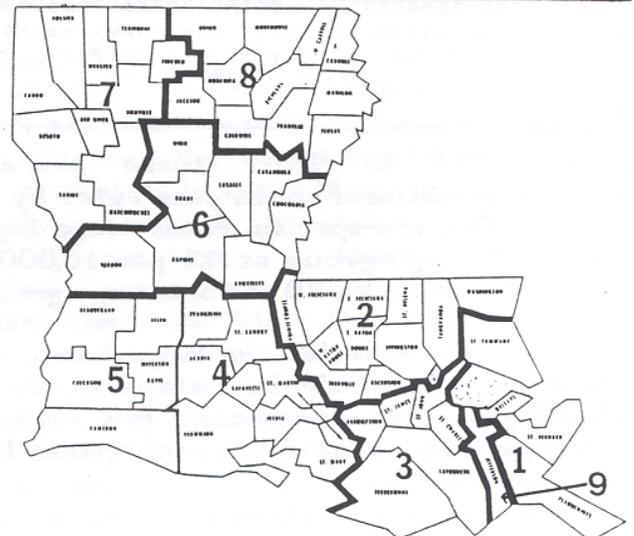
\* Excerpted from St. Gabriel Miscarriage Investigation Eastbank of Iberville Parish, Louisiana 9/27/89.

# Communicable Disease Surveillance, March-April 1990

## Table 1. Frequent diseases by region

Disease		Health Department Region									Mar-Apr 1990	Mar-Apr 1989	Cum. 1990	Cum. 1989	% Change
		1	2	3	4	5	6	7	8	9					
<b>VACCINE-PREVENTABLE</b>															
Measles	Cases	0	0	0	0	0	0	0	0	0	0	6	0	8	-
Mumps	Cases	2	4	3	9	3	0	2	3	0	26	176	59	290	-80
	Rate*	0.3	0.5	1.0	1.6	1.1	0	0.3	0.9	0	0.6	4.0	1.3	6.6	
Rubella	Cases	0	0	0	0	0	0	0	0	0	0	2	0	5	-
Pertussis	Cases	1	0	0	0	0	0	0	0	0	1	3	1	4	-75
<b>SEXUALLY-TRANSMITTED</b>															
Gonorrhoea	Cases	948	283	46	106	87	42	311	156	53	1881	2930	4262	4852	-12
	Rate**	12.2	3.7	1.5	1.9	3.3	1.3	5.3	4.9	1.1	4.3	6.7	9.7	11.1	
Syphilis	Cases	169	67	8	22	2	39	31	28	39	405	247	767	396	+94
	Rate**	2.2	0.9	0.3	0.4	0.1	1.2	0.5	0.9	0.8	0.9	0.6	1.8	0.9	
<b>ENTERIC</b>															
Campylobacter	Cases	2	7	2	5	0	0	0	0	3	19	10	32	16	+100
Hepatitis A	Cases	2	5	3	4	4	0	7	0	1	26	47	42	99	-58
	Rate*	2.3	0.6	1.0	0.7	1.5	0	1.2	0	0.2	0.6	1.1	0.9	2.3	
Salmonella	Cases	13	4	5	3	7	0	3	0	4	39	66	143	128	+12
	Rate*	1.7	0.5	1.6	0.5	2.6	0	0.5	0	0.9	0.9	1.5	3.3	2.9	
Shigella	Cases	9	0	0	0	1	0	2	0	6	18	64	54	148	-64
	Rate*	1.2	0	0	0	0.4	0	0.3	0	1.3	0.4	1.5	1.2	3.4	
Vibrio Cholera	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Vibrio, other	Cases	1	0	0	0	0	0	0	0	0	1	4	3	12	-75
<b>OTHER</b>															
Hepatitis B	Cases	7	10	1	10	3	4	11	0	4	50	55	87	111	-22
	Rate*	0.9	1.3	0.3	1.8	1.1	1.2	1.9	0	0.9	1.1	1.3	2.0	2.5	
Meningitis															
H. Influenza	Cases	4	1	4	1	2	0	4	1	2	19	32	36	32	+13
N. Meningi.	Cases	0	0	1	2	2	0	0	0	0	5	18	14	18	-22
Tuberculosis	Cases	11	3	1	9	6	3	4	8	3	48	50	91	32	+11
	Rate*	1.4	0.4	0.3	1.6	2.3	0.9	0.7	2.5	0.6	1.1	1.1	2.1	1.9	

\* Cases per 100,000 population  
 \*\* Cases per 10,000 population



**Table 2. Diseases of low frequency, 1990**

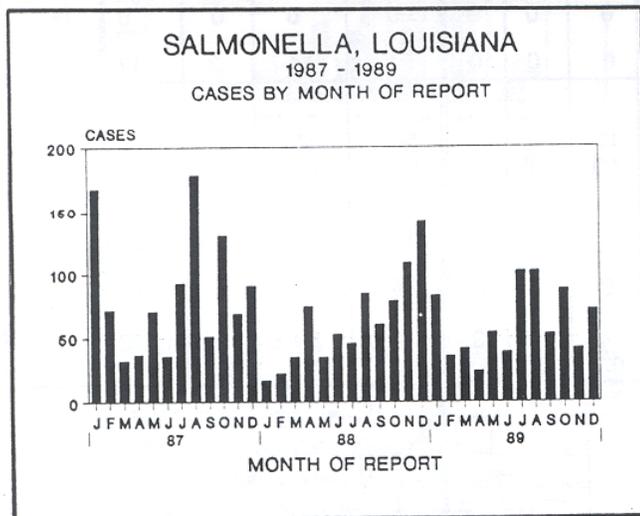
Disease	Total to date
Blastomycosis	1
Brucellosis	1
Histoplasmosis	2
Lead Toxicity	4
Legionellosis	6
Leprosy	0
Lyme Disease	0
Malaria	0
Rocky Mountain Spotted Fever	0
Tetanus	1
Typhoid	0

**Table 3. Animal Rabies, May - June 1990**

Parish	Species	No. cases
Caddo	Skunk	1
DeSoto	Skunk	2

**Annual Summary - Salmonella**

In 1989, there were 739 cases of Salmonellosis reported in Louisiana, a decrease of 2% from 1988 and 28% from 1987. The case rate for Louisiana for 1989 was 17 per 100,000. Case reports by month are shown in the graph below.

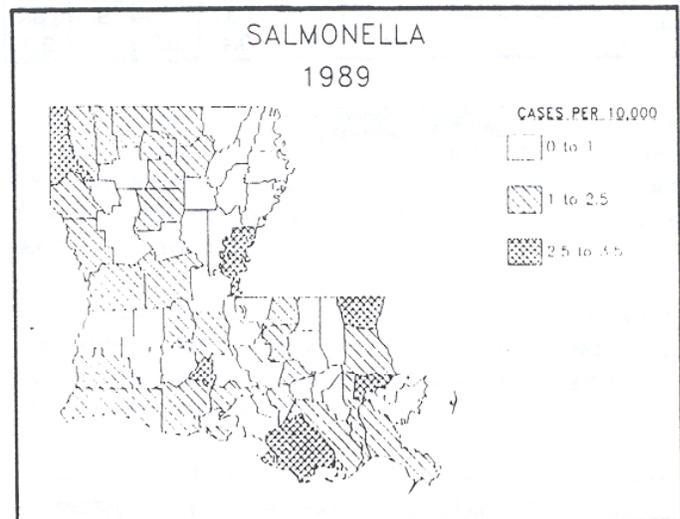


From 1987 to 1989 there were no substantial differences in case rates by race or sex. The age-specific rates were highest for the 0-4 age group at 4.1 per 10,000 and ranged from 0.3 to 1.0 for older age groups.

The six parishes with the largest case rates were Caddo, Concordia, Lafayette, Orleans, Washington, and Terrebonne. (see map) The serotypes most frequently reported in 1989

were *S. typhimurium* (19.5%), *newport* (11.9%), *heidelberg* (11.5%), *enteritidis* (9.6%) and *javiana* (7.0%).

Salmonellosis is the most commonly reported enteric infection in Louisiana. Transmission usually occurs through ingestion of contaminated food, although person to person transmission can also occur. Antibiotics may prolong the carrier state and lead to resistant strains. Ordinarily, deaths due to salmonellosis are uncommon except in the very young, the very old, and the debilitated. However, morbidity and associated costs of salmonellosis may be high. Rapid detection of outbreaks and prompt institution of control measures can prevent substantial illness.



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