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LOUISIANA MORBIDITY REPORT EPIDEMIOLOGY

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DO PHYSICIANS REPORT DISEASES?

In the spring of 1990 the Tulane School of Public Health and the Epidemiology Section carried out a survey of physicians regarding disease reporting in Louisiana. Survey questionnaires were sent to 958 physicians practicing one of five specialties (Family Practice, Internal Medicine, Obstetrics, Pediatrics, and Infectious Disease); 582 (60%) questionnaires were returned. Among those physicians who said that they saw patients with selected reportable disease, between 31% and 67% said that they "always" reported the cases to the health department. Disease-specific reporting rates were lowest for mumps and highest for pertussis and AIDS (Table 1).

Table 1. Percent of physicians who reported all diagnosed cases of selected diseases.

Disease	% of Physicians
Pertussis	67
AIDS	60
Meningitis	46
Vibrio Infections	45
Gonorrhea	43
Hepatitis	38
Shigellosis	37
Mumps	31

Among physicians who did not report cases, the most common reason they did not was that they assumed the cases were reported by others (51%). They also listed concerns about confidentiality (37%) and a lack of cards with which to report cases (31%).

Physicians were asked to suggest changes in the current system that might make reporting easier for them. The most common suggestions were a 24-hour telephone line to report cases, greater protection of confi-

dentiality, and providing reporting cards to all physicians annually (Table 2).

Table 2. Changes in surveillance system suggested by physicians to improve reporting.

Change	% of Physicians
24-hour phone line to receive reports	59
Greater protection of confidentiality	38
Provision of reporting cards annually	38

Comment:

The state's communicable disease surveillance system is designed to monitor disease patterns and trends in the state and to identify outbreaks. The information gathered is also used to set disease-control priorities at the Office of Public Health, and is forwarded to the Centers for Disease Control for national public health planning.

The majority of disease reports come from laboratories, hospital infection control nurses, and local health units. However, for many diseases physicians are the only health care providers in contact with patients, and we rely heavily on physicians to provide us with information on these diseases. In addition, even for those patients with diseases that are identified by laboratories (such as hepatitis), physicians are in a unique position to provide important information about the patient's illness or risk factors. Physicians also are usually the first health care providers to identify suspected cases of communicable diseases, and they

can shorten the reporting time lag and thereby speed outbreak investigations.

In response to physicians' suggestions, we are establishing a 24-hour telephone line for disease reports: (800) 568-5006, which should be available in the fall of 1990. Physicians may report cases over the telephone by calling this number or by calling the parish health unit, or may report cases through the mail by sending reporting cards to the parish health unit. Packets of the blank reporting cards can be obtained by calling the parish health unit, but we will also be sending cards to physicians annually. For most diseases, the information we request in the case report is the following: name, address, age, race, sex, diagnosis, date of onset, and any supporting laboratory results.

We were surprised to find a high level of concern about the confidentiality of case reports. We regard all case reports to be strictly confidential and we protect our records carefully. Concerns about the handling of information about sexually transmitted diseases are understandable. Persons with these diseases are encouraged to notify their own sexual partners about their risk of infection; only when they do not notify their partners do OPH workers notify them. When they do so, index patients are never identified.

To our knowledge, no breach of the confidentiality of case reports has occurred in this state. At the time of this writing a bill is proceeding through the state legislature that would further protect the confidentiality of communicable disease records.

New Malaria Drug Recommended

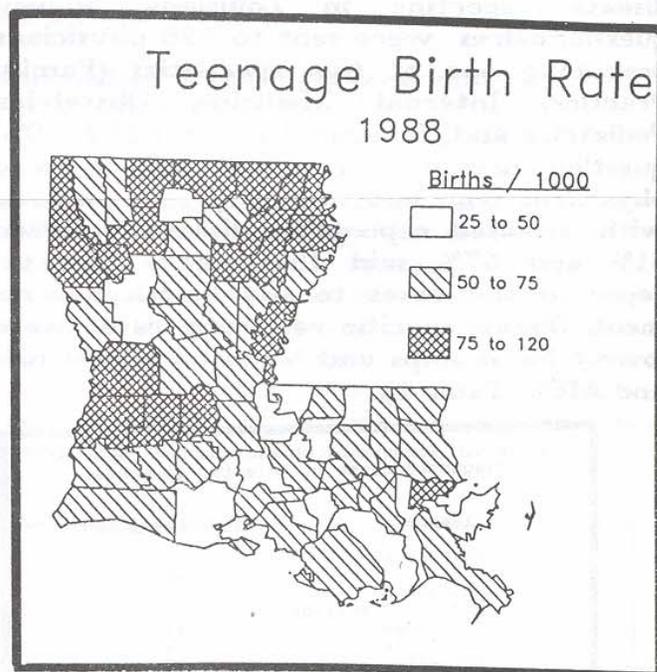
The antimalarial drug Lariam (Mefloquine) has recently been approved by the FDA and recommended by the CDC for prophylaxis for travelers to areas where chloroquine-resistant malaria is present. This recommendation replaces the old recommendation of use of chloroquine and Fansidar for travelers to these areas. For further information about mefloquine or the new recommendations, contact the Epidemiology Section or look in *Recommendations for the prevention of malaria among travelers*. MMWR Recommendations and Reports 1990;39(1-10).

Teenage Pregnancy in Louisiana

In 1988, more than 6% of Louisiana teenager girls age 15-19 gave birth. The birth rate of 63 per 1000 was 22% higher than the U.S. rate for 1987. The birth rate for 10-14 year olds was 2.1 per 1000, more than 60% higher than the U.S. rate.

Among teenagers age 15-19, the birth rate was more than twice as high for nonwhites (96 per 1000) as it was for whites (43 per 1000), reflecting a pattern seen nationally.

The graph below shows birth rates for teenage girls age 15-19 by parish. Teenage birth rates tended to be higher in parishes in the northwest parts of the state. Approximately one of every ten teenagers gave birth in Madison, Red River, East Carroll, Vernon, and Claiborne parishes.



Comment:

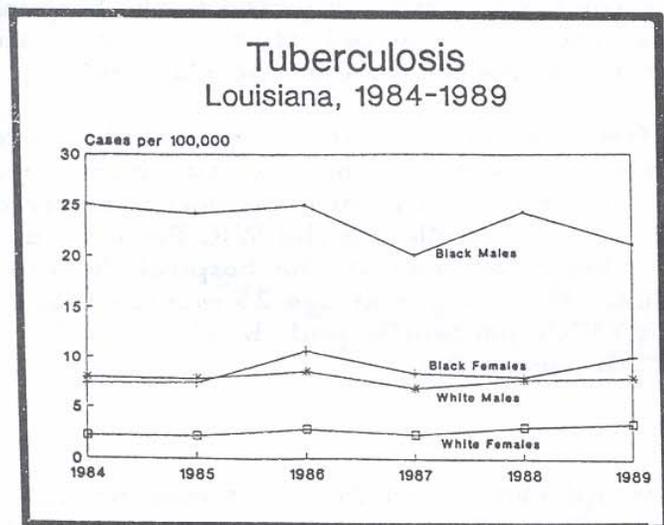
Teenage pregnancy has adverse effects on both the adolescent mothers and their children. Pregnancy complication rates are 2.5 times as high for girls under age 15 as they are for women age 20-24. Girls who become pregnant as teenagers are also more likely to drop out of school and reach lower levels of work success. Babies born to teenage mothers are more likely to have low birth weight, poor growth, and have higher long-term morbidity and mortality.

National surveys indicate that approximately 50% of teenage girls are sexually active. It is unreasonable to expect that programs that encourage abstinence will prevent sexual activity in all of these girls, so contraception is necessary to prevent pregnancy. Whereas sex education courses by themselves have no effect on teenage pregnancy rates, programs that provide both counseling and ready access to contraceptives have been effective and decreasing the likelihood of pregnancy. Primary-care physicians should be aware of the problem of teenage pregnancy in Louisiana, and should discuss contraception with girls at the time of menarche.

Annual Report - Tuberculosis

There were 407 cases of tuberculosis reported in Louisiana in 1989, a 2% increase from the 398 cases reported in 1988. The case rate for the state was 9.3 per 100,000 population, approximately equal to the estimated national rate of 8.9 per 100,000. Provisional data for 1989 indicate that Louisiana ranks 18th of the 50 states in rates of tuberculosis.

Case rates by sex and race for 1984-1989 are shown in the graph below. Rates have consistently been higher in males than in females and higher in blacks than in whites.



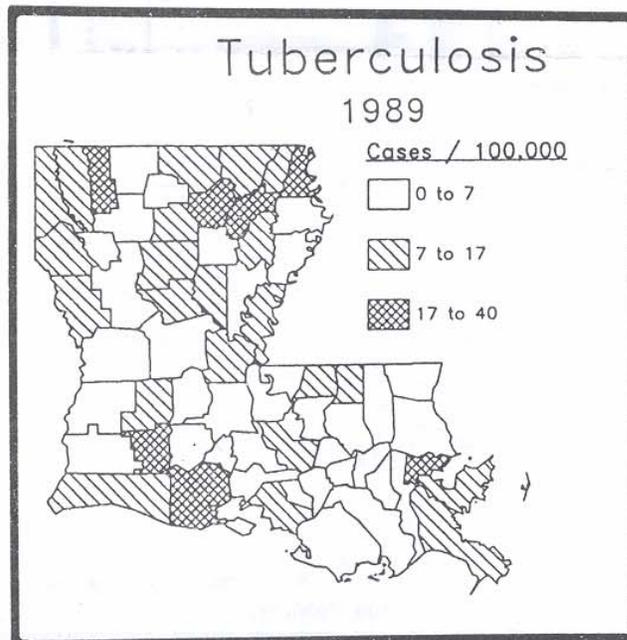
Case rates by parish are shown in the map below. The parishes with the highest case rates were Ouachita (29 per 100,000), Richland (27), E. Carroll (37), Webster (29)

and Orleans (21). There have been no major changes in case rates by parish since 1984.

Matching of the tuberculosis and AIDS registries identified 39 cases of TB-AIDS, increase from 12 cases in 1988. Twenty-six of the 39 TB-AIDS cases were from Orleans Parish and six were from Jefferson Parish.

Comment:

For many years, rates of tuberculosis have been high in Louisiana, especially in certain parishes. Efforts to decrease the burden of this illness are now complicated by the HIV epidemic. HIV has already caused a large increase in the number of TB cases in areas of Africa and in New York City; we can expect that it will have an impact in Louisiana as well. Beginning in 1990, all new cases of tuberculosis in Louisiana will be offered HIV testing. This will help the TB control program track the effect of HIV infection on TB rates in the state. More extensive efforts are underway to identify, examine, and preventively treat contacts of cases.

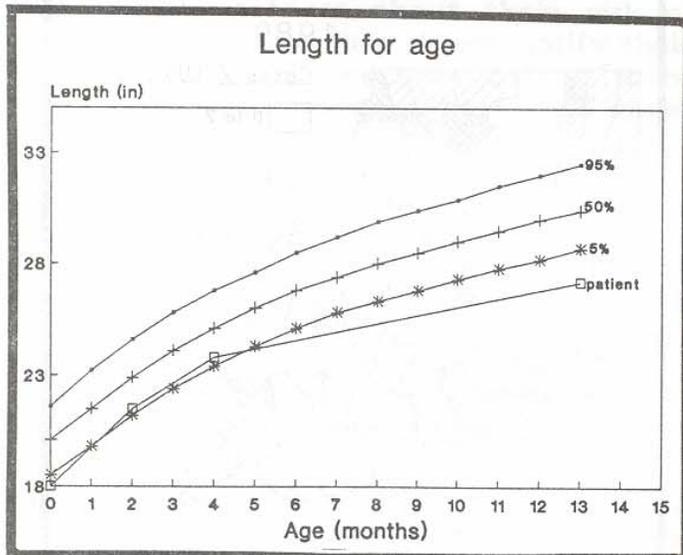


Tuberculin skin testing is now recommended for all persons identified with HIV infection regardless of the stage of the disease. The criterion for tuberculin positivity is > 5mm induration for HIV-positive persons (as it is for recent contacts of cases). Currently, the recommended preventive therapy for HIV-positive, tuberculin-positive persons is 12 months of isoniazid (INH).

Kwashiorkor in Louisiana - A Case Report

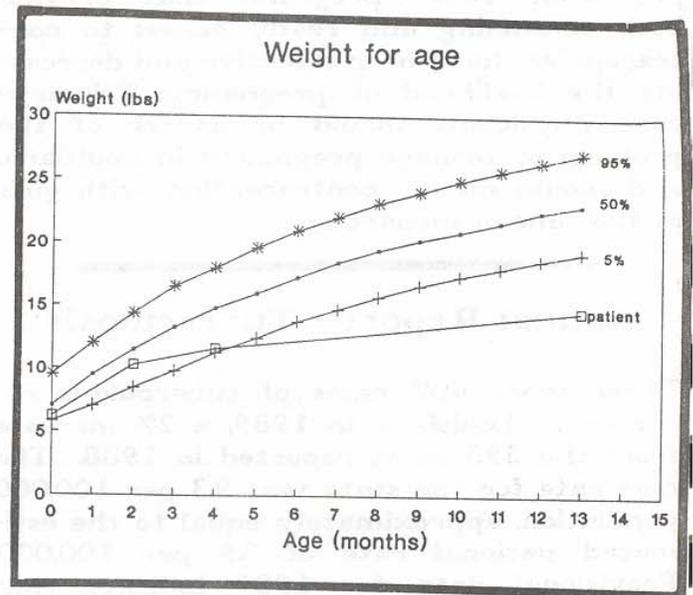
On 1/8/89, a 13 month old white male was admitted to a Louisiana charity hospital with a diagnosis of kwashiorkor. On physical examination, the child was found to have a protruding abdomen, peripheral edema, and sparse coarse hair. He was unable to crawl, walk, talk, and barely able to sit. Laboratory values were: total protein 4.8 gm/dl, albumin 2.8 gm/dl, hemoglobin 8.2 gm/dl and hematocrit 24.6%. Liver enzymes and triglycerides were elevated.

The child's birth weight was 6 lbs 4 oz (10th percentile) and length was 18 in (<5th percentile). After gaining weight well in the first 4 months, patient's rate of growth decreased markedly (Figure). One week before his hospital admission he was seen twice at emergency rooms for otitis media without a diagnosis of malnutrition being made. At the time of hospital admission, the child was 4 1/2 pounds below the 5th percentile for weight and 1 1/2 inches below the 5th percentile for length.



The child's mother was a 23 year old single parent receiving AFDC and Food Stamps. Three weeks prior to the child's hospitalization, she was diagnosed with Hepatitis B. There was a 2 year old sibling with chronic bronchio pulmonary dysplasia who has required frequent hospitalization and intensive home care.

The child was enrolled in the WIC Program at age 2 months and received WIC food package, which included infant formula, fruit juice, and cereal. Failure to keep appointments (due to frequent illness) for recertification of benefits resulted in his removal from the program at the age of 7 months.



The child was fed Similac with Iron, and cereal was added at age 2 months. However, due to continued fussiness after feedings, an infant feeder was substituted for the bottle and all foods were introduced with this device. By age 12 months, he was abruptly weaned from the infant feeder. By the time he was admitted to the hospital his mother reported that the child ate primarily ice cream and chocolate milk.

After 14 days in the hospital, the child gained 4 pounds and he was discharged when his symptoms of kwashiorkor resolved. He was re-enrolled in the WIC Program and routinely followed at the hospital Pediatric clinic. His weight at age 25 months was 27 lbs (47th percentile) and height was 33 in (29th percentile).

Comment:

Kwashiorkor is an illness caused primarily by a lack of intake of dietary protein. In the United States, where protein foods are readily available, the causes leading to kwashiorkor may be difficult to ascertain. In this case, the nutrition history is sufficiently vague to question its reliability. A disparity exists between documented

dietary information and mother's report. Based on his anthropometric values at age 4 months, it is evident that a significant change in diet occurred to cause a four-fold decrease in the child's growth rate. He was enrolled in the WIC Program during the time growth failure began, so it appears that he did not benefit from the WIC supplemental foods. In addition, his home environment was complicated by a single parent and the presence of a chronically ill sibling.

Regardless of the causes of malnutrition, children with this problem should be identified early, treated appropriately, and followed closely until adequate nutritional status is regained. This is not always easy to carry out in a busy public health clinic or emergency room where staffing may be inadequate and where acute medical problems may appear more pressing.

Kwashiorkor is a rare condition in this country. Consequently, many health professionals may not recognize its signs and symptoms. The initial step in the prevention of malnutrition is to recognize the danger signal of growth failure, which may occur in an otherwise normal infant. All health professionals should be well trained in the assessment of growth and its interpretation.

Cluster of Clostridium Difficile Infections in a Family

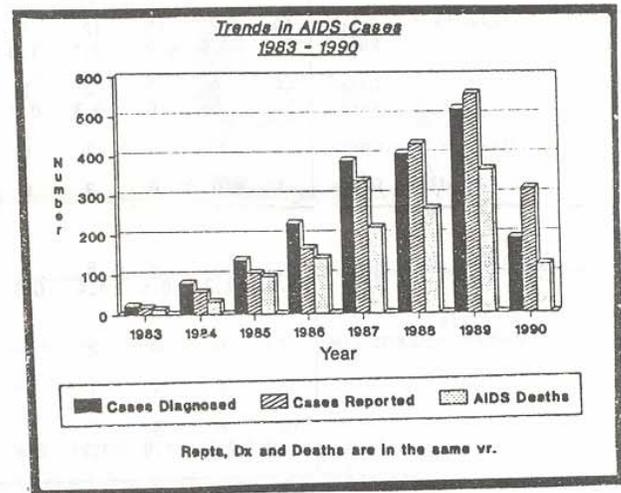
The Epidemiology Section received a report of five members of a family with stool cultures positive for *Clostridium difficile*. Three of the five family members had complaints of abdominal pain and diarrhea. Two of the three ill persons had been on multiple antibiotics in the two months prior to illness. A 42-yr-old woman had taken trimethoprim-sulfamethoxazole, penicillin, and erythromycin for chronic sinusitis, and her 5-yr-old daughter had taken cefaclor and ampicillin for recurrent tonsillitis. A 13-yr-old son had taken no antibiotics before developing abdominal discomfort and diarrhea.

C. difficile is an anaerobic, gram-positive bacillus that is part of the normal fecal flora for 2% to 8% of humans. It is resistant to most antimicrobials and associated with a

spectrum of antibiotic-associated diarrheal illness, the most severe form of which is pseudomembranous colitis. *C. difficile* can be cultured from diarrhea feces of 95% of patients with pseudomembranous colitis.

It has recently been recognized that *C. difficile* is similar to other enteric pathogens in its potential to cause outbreaks among persons at risk. In one prospective study of children in daycare centers, person-to-person spread of *C. difficile* was found, and children taking antibiotics were more likely to have positive cultures and to manifest symptoms.

In most patients with *C. difficile* diarrhea, nothing more needs to be done aside from stopping antibiotics. Patients with severe disease such as pseudomembranous colitis may require treatment with oral vancomycin.



BULLETIN

Reporting of Hepatitis C Cases

There is now available a test which detects antibody to the newly recognized hepatitis C virus (anti-HCV) in serum. This test is already being used to screen potential blood donors in Louisiana.

The Epidemiology Section from now on will be collecting information about cases of hepatitis C. Hepatitis cases in Louisiana will be classed as one of: Hepatitis A, Hepatitis B, Hepatitis C, and unspecified hepatitis. Physicians are requested to provide specific laboratory identifiers with their report to clearly identify which type of hepatitis is being reported.

COMMUNICABLE DISEASE SURVEILLANCE, May-June 1990
PROVISIONAL DATA

Table 1. Selected diseases by region

DISEASE	HEALTH DEPARTMENT REGION										May-June 1990	May-June 1989	Cum 1990	Cum 1989	%Change
	1	2	3	4	5	6	7	8	9						
Vaccine-preventable															
Measles	Cases	0	0	0	0	0	0	0	0	0	0	1	10	9	+11
Mumps	Cases	3	6	0	5	1	0	0	1	0	16	193	76	482	-84
	Rate*	0.3	0.7	0	0.8	0.3	0	0	0.3	0	0.4	4.4	1.7	11.0	
Rubella	Cases	0	0	0	0	0	0	0	0	0	0	0	0	5	-100
Pertussis	Cases	3	2	2	0	0	0	1	1	1	10	1	11	5	+120
Sexually-transmitted															
Gonorrhea	Cases	1599	393	95	207	85	115	352	244	262	3300	2535	7531	7387	+2
	Rate**	20.0	5.1	3.0	3.6	3.2	3.6	6.0	7.7	5.6	7.5	5.8	17.2	16.9	
Syphilis	Cases	158	66	15	48	2	33	34	32	56	444	228	1211	624	+94
	Rate**	2.0	0.9	0.5	0.8	0.1	1.0	0.6	1.0	1.2	1.0	0.5	2.8	1.4	
Enteric															
Campylobacter	Cases	3	6	4	1	0	1	0	0	7	22	16	59	31	+90
Hepatitis A	Cases	6	14	7	3	1	3	7	1	2	44	63	85	158	-46
	Rate*	0.7	1.8	2.2	0.5	0.3	0.9	1.2	0.3	0.4	1.0	1.4	1.9	3.6	
Salmonella	Cases	19	7	13	12	5	4	27	2	12	101	99	252	221	+14
	Rate*	2.4	0.9	4.2	2.1	1.8	1.2	4.6	0.6	2.5	2.3	2.3	5.8	5.0	
Shigella	Cases	44	9	0	2	2	0	7	1	14	79	85	124	222	-44
	Rate	5.6	1.1	0	0.3	0.7	0	1.2	0.3	3.0	1.8	1.9	2.8	5.1	
Vibrio Cholera	Cases	0	0	0	1	0	0	0	0	0	1	0	1	0	+
Vibrio, other	Cases	1	0	0	2	0	0	0	0	3	6	8	15	20	-25
Other															
Hepatitis B	Cases	16	10	2	8	1	6	5	1	6	55	96	145	200	-28
	Rate	2.0	1.2	0.6	1.4	0.3	1.8	0.8	0.3	1.2	1.3	2.2	3.3	4.6	
Meningitis															
H. Influenza	Cases	1	0	0	2	0	0	1	0	1	5	12	41	44	-7
N. Mening.	Cases	1	0	0	1	0	0	0	2	2	6	7	24	24	-
Tuberculosis	Cases	16	6	3	7	7	0	8	6	5	58	65	149	137	+9
	Rate	2.1	0.8	1.0	1.2	2.6	0	1.4	1.9	1.1	1.3	1.5	3.4	3.1	

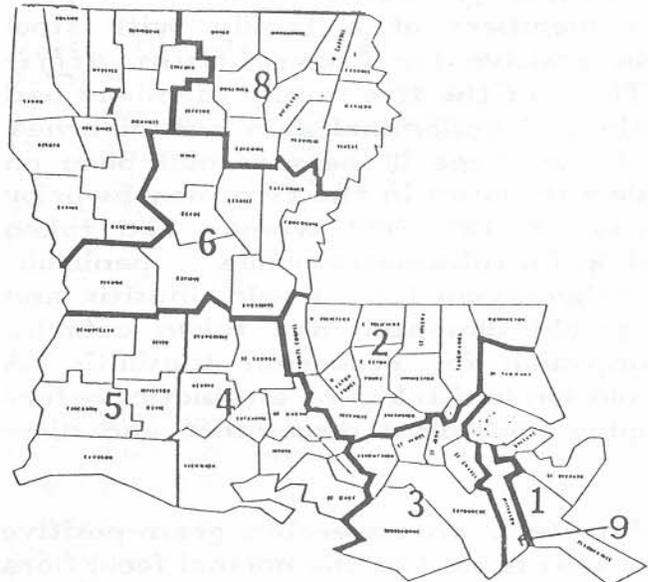
* Cases per 100,000 population
** Cases per 10,000 population

Table 2. Diseases of low frequency, 1990

Disease	Total to date
Blastomycosis	2
Brucellosis	2
Histoplasmosis	3
Lead Toxicity	4
Legionellosis	9
Leprosy	0
Lyme Disease	1
Malaria	1
Rocky Mountain Spotted Fever	1
Tetanus	2
Typhoid	0

Table 3. Animal rabies - May-June 1990

Parish	Species	No. Cases
Bienville	Skunk	2
Bossier	Skunk	5
Caddo	Skunk	1
Lincoln	Skunk	1

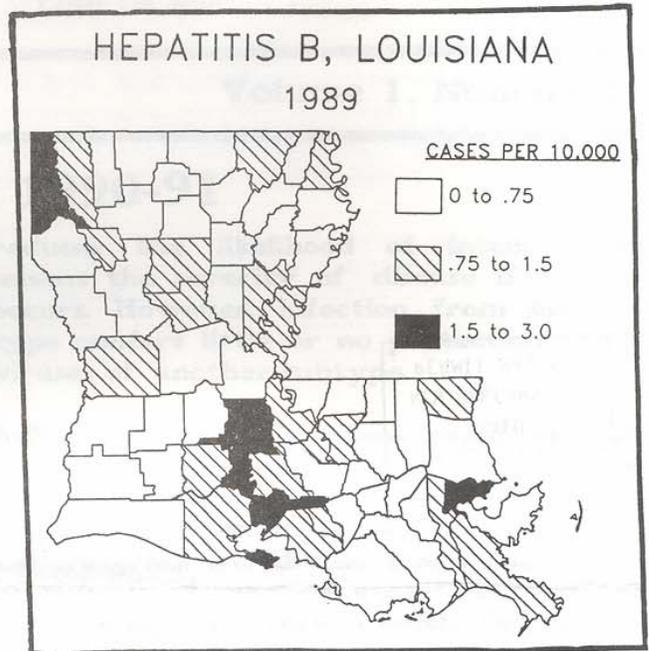


Annual Summary - Hepatitis B

In 1989, there were 419 cases of hepatitis B reported in Louisiana, a decrease of 2% from 1988 and 31% from 1987. The case rate for 1989 was 0.9 per 10,000. In 1989, case rates per 10,000 population for blacks were three times higher than for whites (1.6 vs 0.5) and rates for males were 1.5 times higher than for females (1.1 vs 0.8), findings which are consistent with previous years in Louisiana and with the U.S. as a whole. The age distribution showed the highest case rates in the 20-29-year-old (1.7) and 30-39-year-old (1.6) age groups. The five parishes with the largest case rates were Iberia (2.7), St. Landry (2.2), Lafayette (1.7), Caddo (1.6), and Orleans (1.5). (See map)

7.9% in 1987 to 21.1% in 1988. Intravenous drug use as of 1988 was the most commonly reported risk factor for hepatitis B.

Prevention strategies remain at present to immunize with hepatitis B vaccine individuals at high risk, persons in populations with high hepatitis B endemicity, and infants of mothers who are chronic HBV carriers.



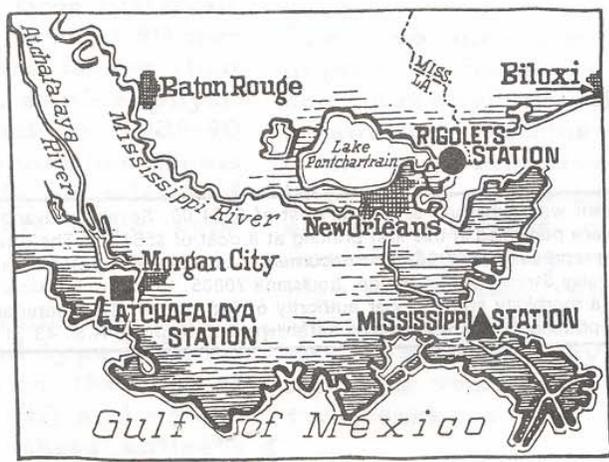
Transmission of hepatitis B Virus (HBV) in the U.S. is primarily through parenteral or sexual routes. Commonly recognized risk factors include male homosexual activity, illicit intravenous drug use, occupational exposure to blood, sexual or close household exposure to a HBV-infected contact, and heterosexual activity with multiple partners. Risk factor information is available for only about 25% of reported hepatitis B cases. Risk factors obtained from hepatitis B cases in Louisiana showed an increase in patients reporting parenteral drug use from

LOUISIANA FACTS

Did you know that during the 1880's Louisiana had three quarantine stations to control the importation of contagious diseases?

DO YOU HAVE ANY INTERESTING FACTS ABOUT LOUISIANA THAT YOU WOULD LIKE TO SEE PUBLISHED IN THE LOUISIANA MORBIDITY REPORT? SEND FACTS AND SOURCE TO: LOUISIANA FACTS, DHH-OPH-EPIDEMOLOGY SECTION, P.O. BOX 60630, NEW ORLEANS, LA 70160.

LOUISIANA'S THREE QUARANTINE STATIONS, 1884



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