

Louisiana Morbidity Report

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

May-June 1999

Volume 10 Number 3

Infant Immunization Coverage

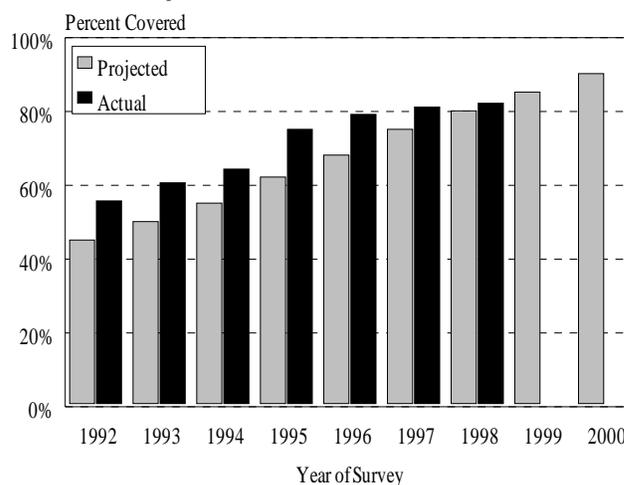
The annual assessment of vaccination status of two-year-olds in public health clinics in Louisiana showed that vaccination levels continue to rise, but that additional tracking and reminder systems will be necessary to achieve the year 2000 goal. These assessments, which have been conducted since the Infant Immunization Initiative began in 1992, measure progress toward the year 2000 goal of 90% vaccination rate among children 24 months of age with four DTP, three polio and one MMR vaccine. In addition, they help identify low-coverage areas in need of targeted solutions and provide information on reasons for low immunization rates such as missed opportunities.

In 1992 the Immunization Program found that only 55% of two-year-olds in public clinics in Louisiana had completed their primary vaccination series. In 1998, the vaccination rate rose to 82% (95% CI \pm 4%), a 27 percentage point increase in seven years, but only a 1 percentage point increase over 1997 (Figure 1). The Immunization Program clinic assessment data is consistent with a separate National Immunization Survey, conducted by the Centers for Disease Control and Prevention in 1998, which estimated that the coverage for two-year-olds in Louisiana was 77% (95% CI \pm 4.1%).

The data consistently demonstrate that over ninety percent of children in Louisiana who are actively enrolled in public health clinics start childhood immunizations prior to six months of age. While most start much earlier, a number

of children drop out somewhere between their first immunization visit at two months and the visit recommended at 12-15 months. The 1998 survey indicated that 15% of the children could have completed their primary series by 24 months of age with one additional visit. To reach the 90% goal, the Immunization program is focusing on these "drop out" children.

Figure 1: Actual and projected percentages (1992) of 24-month old children in public clinics in Louisiana who had completed 4 doses DTP, 3 doses polio, and 1 dose MMR vaccine, 1992-1998



In order to reduce the dropout rate parents/guardians need to (1) have access to immunization services (2) be able to afford immunization, (3) be motivated to have their infants immunized, and (4) know when to bring their infants in for immunizations. Since most infants begin the immunization series, access to immunization services is probably not the primary cause of dropout. A past survey on parental attitudes found that 89% of parents who visited Louisiana Parish Health units found it easy or very easy to get their child immunized. In addition, cost should not be a barrier to immunization in health units or in the private sector. Vaccines are free at public clinics except for a small administration fee, and the Vaccines for Children program allows many infants to receive immunizations in the private sector free or at greatly reduced cost. It appears that most parents in Louisiana do not need additional motivation in order to have their children immunized. Surveys of parents utiliz-

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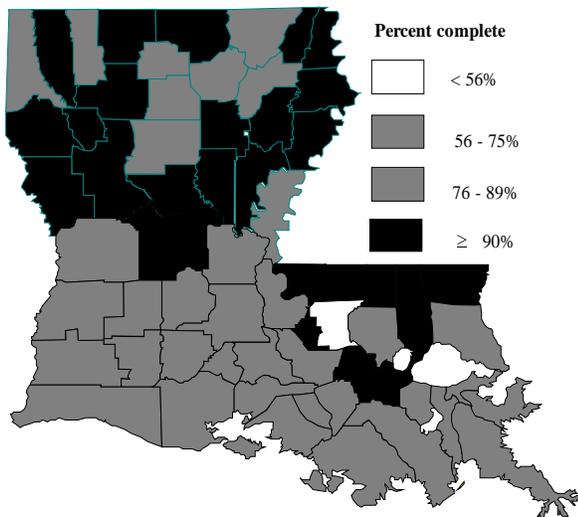
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ing parish health units for infant immunization have found that 97% believe vaccines are safe and effective. Additionally, 86% thought that without immunizations their child was likely to contract a vaccine preventable disease.

The remaining problem may be that parents do not know when to bring their infants back for additional immunization visits. In order for parents to return for successive visits they must either interpret the immunization schedule themselves or rely on their provider to tell them when the next immunization visit is due. Asking parents to understand the immunization schedule is impractical. The schedule is complex, changes frequently, requires several visits, and varies depending on when the child received previous immunization. Parents are more likely to continue successive immunizations if their provider tells them when to return. Thus far, simply telling parents when their immunization visit is and providing personal immunization records at the time an immunization visit is made has not satisfactorily reduced the number of children who drop out before finishing the immunization series. It is probably difficult for parents to remember an immunization visit that may be six to nine months away. For this reason the Immunization Program feels that a tracking and recall system capable of reminding parents a few days before the child needs immunization could significantly reduce the number of "drop-

Figure 2: Percentage of 24-month old children in public clinics up to date on immunizations, 1998



outs".

Currently, few parish health units or private physicians employ systematic tracking and recall of infants for due or overdue immunizations. The Immunization Program is developing a statewide computerized tracking system to remind parents when immunizations are due. In the meantime, while this complex system is being developed, a simple low tech solution such as an immunization reminder post-card system may help reduce the number of "dropout" children and bring the state closer to the 90% vaccination coverage goal.

Robert Gohd, Virologist

Dr. Robert Seymour Gohd, a virologist and professor of pathology, died on June 7, 1999. He was 76 years old and had lived New Orleans for the past 29 years. Dr. Gohd was director of the virology laboratory at Charity Hospital from 1970 to 1991, in association with the LSU Department of Pathology and Tulane University. He was also the director of virology at Children's Hospital, where he established the diagnostic lab. Dr. Robert Gohd was a wonderful friend and colleague to the Infectious Disease Epidemiology Section from 1976 until his death. During influenza season particularly, he worked tirelessly with us to confirm and type influenza cases.

NOTICE

Pneumococcal Polysaccharide Vaccine (PPV) is now available through the parish health units. Call your local health unit to make an appointment.

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Syphilis Elimination

Rates of syphilis are at a historic low in the U.S., prompting public health officials and others to put together a plan for the elimination of syphilis transmission from the country. The details of this syphilis elimination plan are not yet complete, but the general outlines of it are set. Louisiana, which has historically high syphilis rates, has begun to receive some funding from the Centers for Disease Control and Prevention (CDC) to start implementing it.

There were 8,550 cases of primary and secondary (P&S) syphilis reported in the U.S. in 1997 (case rate of 3.2 per 100,000), and the provisional total for 1998 decreased further to 7,183. These are the lowest number of cases reported since CDC started maintaining national statistics, providing perhaps a unique opportunity to end the cyclic nature of syphilis epidemics. The impetus for elimination of syphilis comes from the combination of these low rates with the "epidemiologic vulnerability" of syphilis: lack of a nonhuman reservoir, long incubation time, and widely available, inexpensive testing and treatment. Two other factors are supporting syphilis elimination as well: 1) the recognition that control of STDs, as cofactors for HIV transmission, can prevent HIV infection and AIDS, and 2) the desire to eliminate racial disparities in health.

Louisiana has always been among the 10 states with the highest syphilis rates in the U.S. Other states with high rates tend to be in the Southeastern U.S. After an epidemic of syphilis in the late 1980s and early 1990s, case reports and rates in Louisiana dropped rapidly, hitting a low of 363 cases of P&S in 1997 and 431 cases in 1998 (Figure 1). In much of the state rates are far lower than these, but many syphilis cases are continuing to occur in New Orleans, the Houma/Thibodaux area, and a few other scattered areas of the state (Figure 2). These cases could be the tail end of the early-90s epidemic or the beginning of the next cycle of high syphilis rates.

The draft national syphilis elimination plan calls for a reduction of P&S syphilis cases to no more than 1,000 annually by 2005. To do this, the plan includes three key strategies: 1) Enhanced surveillance and outbreak response, 2) Strengthened community involvement and organizational partnerships, and 3) Improved biomedical and behavioral interventions. The improved biomedical and behavioral interventions include syphilis screening, rapid diagnosis, and treatment, as well as partner notification and interventions to improve condom use.

Louisiana has received funding from CDC to conduct pilot projects in three regions of the state: New Orleans, Houma/Thibodaux, and Shreveport. The current plan is to use these funds for outreach to neighborhoods with high rates of syphilis and other STDs. This outreach should include screening and treatment for STDs in a mobile van, as well as education about syphilis and other STDs and condom promotion. In addition, the funds will be used to develop local and statewide plans for syphilis elimination in Louisiana.

Figure 2: Rates of primary and secondary syphilis by parish, 1998

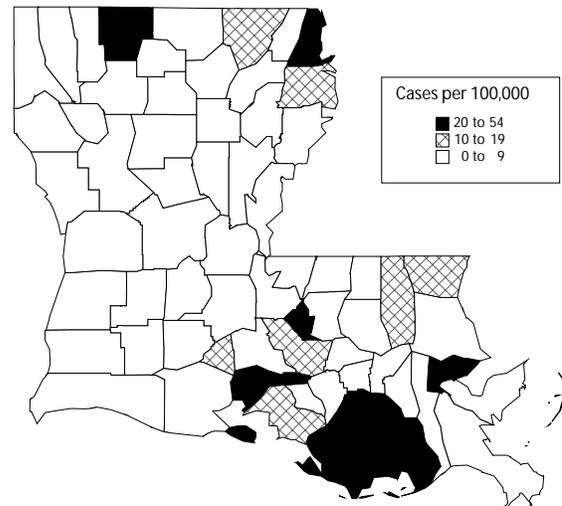
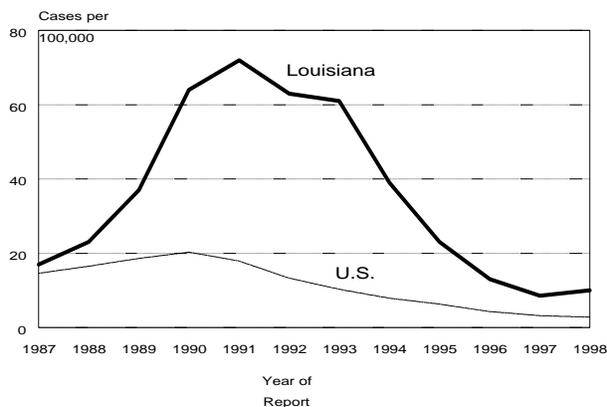


Figure 1: Rates of primary and secondary syphilis in Louisiana and U.S., 1987-1998



National Immunization Hotline

1-800-232-2522 (English)

1-800-232-0233 (Spanish)

Influenza 1998-99 Season

The Immunization Program annually monitors influenza virus activity, to detect and confirm the presence, as well as the type of influenza that may be circulating in the state. The tracking of influenza activity throughout the state is monitored by more than 27 physicians and private practices, 19 hospitals and 17 schools all of which are participating voluntarily in the surveillance program.

Influenza is not a reportable communicable disease regulated by the state Sanitary Code. Laboratory tests to confirm influenza are performed by either the Louisiana State Laboratory, or other Laboratories from specimens obtained from participating physicians and hospitals. The active influenza surveillance began in October 3, 1998 and ended April 15, 1999.

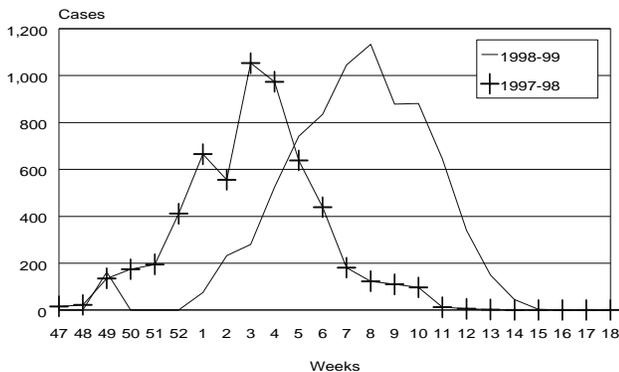
The first two cases identified this season occurred in the month of October. Two African American siblings, ages two and three respectively were diagnosed and confirmed with influenza type A and were hospitalized for three days. Following these cases, from October through December weekly surveillance detected sporadic flu activity. In the first week of January, flu activity began to increase but it did not reach regional outbreak thresholds until week 3 of 1999. The peak of the flu season occurred the weeks of February 13, 1999 through February 26.

During its influenza season, the State received reports of 7,932 cases of flu or flu-like illnesses. Laboratory tests for the same time period confirmed 216 cases of which 159 were type A and 57 were type B.

Over all, this flu season has been a relatively mild and late in peaking as compared to the previous year with only regional outbreaks occurring during its peak (see Figure). No school closures due to flu were reported this year. By week 14 of the year no suspected cases were being reported.

In closing plans are already underway for the 1999-

Figure: Reported cases of either influenza or influenza-like illnesses in Louisiana, 1997-98 and 1998-99



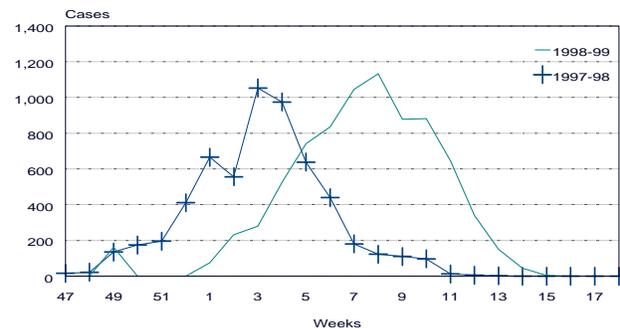
2000 influenza season. Next flu season the Louisiana Office of Public Health laboratory will use Rapid Influenza Fluorescent Assay to screen for the presence of influenza virus type A or B. This preliminary result will be provided within 2 to 4 working days (once the specimen has been received in the lab). All positive preliminary results will be called to the provider's office by the Influenza Coordinator. Viral isolates which may take a few weeks to grow will be further subtyped to determine which types of A or B influenza virus we are seeing in our state.

Emerging Pathogens Surveillance

Emerging Pathogens Surveillance Program aggregate laboratory data from selected hospitals in Louisiana, July - December 1998			
State	Penicillin resistant <i>streptococcus pneumoniae</i>	Methicillin resistant <i>staphylococcus aureus</i>	Vancomycin resistant <i>enterococcus</i> species
#Resistant isolates	80	1284	212
Total isolates	363	4122	3385
% Resistant	22%	31%	6%

The Figure below represents the trend of emerging pathogens data collected from the Emerging Pathogens Surveillance Program, July, 1996, through December, 1998, by six month intervals. The percent resistant for Penicillin Resistant *Streptococcus pneumoniae* (DRSP) has remained relatively constant since the beginning of the surveillance program. The percent resistant for Methicillin (Oxacillin) Resistant *Staphylococcus aureus* (MRSA) has shown a decrease in the last six months. The percent resistant for Vancomycin Resistant *Enterococcus* species (VRE) has shown slight, constant increases since the beginning of the surveillance program.

Figure: Louisiana Emerging Pathogens Surveillance Program, aggregate laboratory data, July 1996 - December 1998

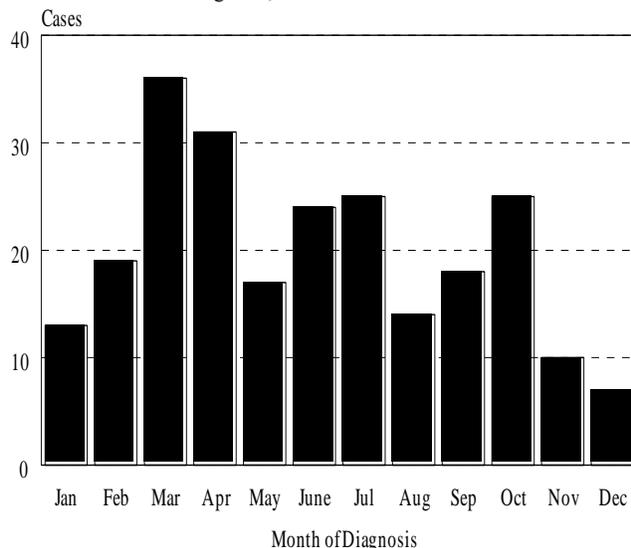


HIV/AIDS Update Cryptosporidiosis Among HIV Patients

Cryptosporidium enteritis is a protozoan infection frequently diagnosed among immunocompromised patients. Among AIDS patients cryptosporidiosis constitutes a debilitating and life-threatening infection for which no effective treatment presently exists. To assess the risk factors, seasonality, and trends of cryptosporidiosis among AIDS patients, data from the New Orleans site of the Adult/Adolescent Spectrum of HIV Disease Study (ASD) were analyzed. ASD is an ongoing periodic review of medical records of HIV+ patients receiving medical care at two public hospitals (Charity and University hospitals) and three HIV out-patient clinics.

Between November 1990 and December 1998, 6,193 HIV+ patients were enrolled in the ASD database in New Orleans. About 79% were male, 55% were African-Americans, and 59% were men who had sex with men. After an average follow up of 43 months, 3.5% developed cryptosporidiosis. Patients with CD4+ cell counts < 100 were significantly at higher risk for cryptosporidiosis than those with CD4+ cell counts \leq 100 (RR:11.3, 95% CI 7.25-17.40). Patients who ever developed AIDS-opportunistic illnesses were also at greater risk (RR:7.8, 95% CI 5.5-11.0). Patients aged \geq 35 years were less likely to develop cryptosporidiosis than those who were < 35 years old (RR: 0.20, 95% CI 0.13-0.29). Cryptosporidiosis occurred all year round in New Orleans (Fig. 1). The highest peak was observed in March, but the slight increase in Spring was not statistically significant. Figure 2 shows that the percentage of cryptosporidium infection increased from 2.9% (n=7) in 1989 to 20% (n=48) in 1994 before declining to 5.8% (n=14) in 1998.

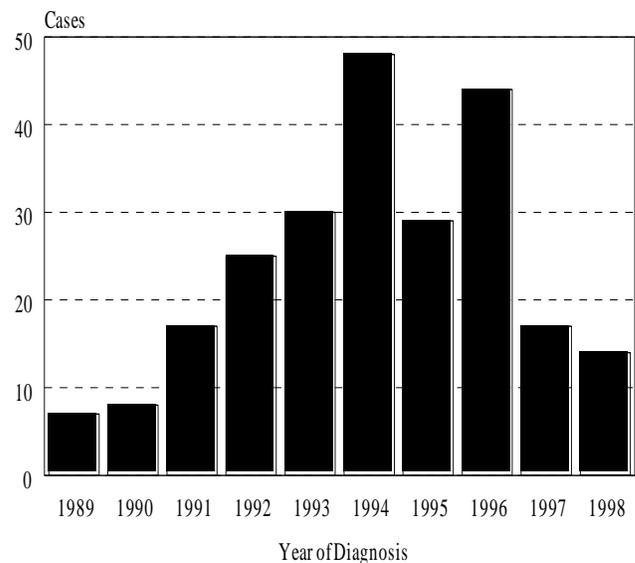
Figure 1: Cases of cryptosporidiosis among HIV infected persons by month of diagnosis, New Orleans 1990-1998



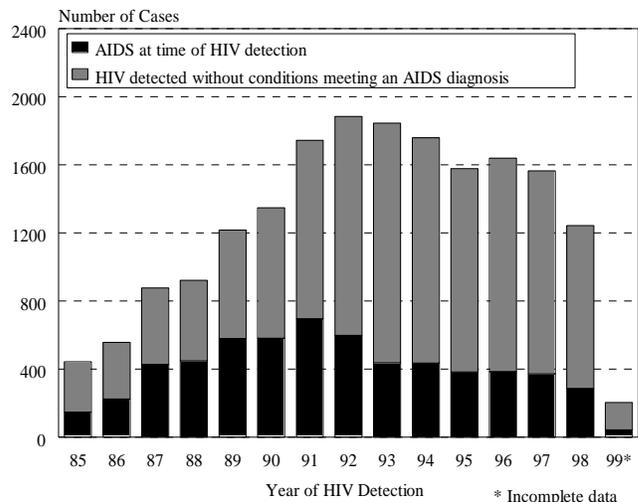
in 1998.

While the incidence of cryptosporidiosis has declined significantly among AIDS patients across the United States following the introduction of new medications, a fair number of cryptosporidiosis cases are still being reported in the New Orleans area. This raises questions not only about patients' compliance with the cocktail regimen, but also, about the existence of environmental factors which put these patients at risk. The high occurrence of cryptosporidiosis during Spring, when people are engaged in outdoor activities (agricultural and construction activities), suggests the existence of environmental factors. Further studies are needed to clarify the origin of episodic cryptosporidiosis among AIDS patients in New Orleans.

Figure 2: Cases of cryptosporidiosis among HIV-infected persons by year of diagnosis, New Orleans, 1989-1998



Louisiana HIV/AIDS Case Trends



1999

LOUISIANA COMMUNICABLE DISEASE SURVEILLANCE
March - April 1999
PROVISIONAL DATA

Table 1. Disease Incidence by Region and Time Period

DISEASE	HEALTH REGION									TIME PERIOD				
	1	2	3	4	5	6	7	8	9	Mar.-Apr. 1999	Mar.-Apr. 1998	Jan.-Apr. Cum 1999	Jan.-Apr. Cum 1998	% Chg
Vaccine-preventable														
<i>H. influenzae</i> (type B)	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Hepatitis B Cases	15	4	0	1	0	1	5	2	6	34	1	52	8	+550
Hepatitis B Rate ¹	1.4	0.7	-	0.2	-	0.3	1.0	0.6	1.6	0.8	0.02	1.2	0.2	
Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Mumps	0	1	0	0	0	1	0	0	0	2	0	2	1	+100
Rubella	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Pertussis	0	0	0	0	0	0	0	0	0	0	0	3	0	-
Sexually-transmitted														
HIV/AIDS Cases ²	131	42	8	11	5	8	12	8	6	231	271	415	483	-14.1
HIV/AIDS Rate ¹	12.1	7.6	2.1	2.2	1.9	2.5	2.4	2.3	1.7	5.4	6.3	9.6	11.2	
Gonorrhea Cases	489	247	158	263	78	86	353	241	129	2044	1761	4153	3646	+13.9
Gonorrhea Rate ¹	47.1	43.5	41.9	51.0	29.1	28.2	69.8	68.7	33.5	48.4	41.7	98.4	86.4	
Syphilis (P&S) Cases	10	7	13	5	3	2	2	0	1	43	44	79	104	-24
Syphilis (P&S) Rate ¹	1.0	1.2	3.4	1.0	1.1	0.7	0.4	-	0.3	1.0	1.0	1.9	2.5	
Enteric														
Campylobacter	5	3	2	2	0	0	1	5	4	22	7	34	25	+36
Hepatitis A Cases	2	1	0	3	6	0	2	2	2	18	5	41	13	+215.4
Hepatitis A Rate ¹	0.2	0.2	-	0.6	2.2	-	0.4	0.6	0.5	0.4	0.1	1.0	0.3	
Salmonella Cases	12	7	1	5	2	3	8	2	5	45	11	68	30	+126.7
Salmonella Rate ¹	1.2	1.2	0.3	1.0	0.7	1.0	1.6	0.6	1.3	1.0	0.3	1.6	0.7	
Shigella Cases	5	7	3	4	1	2	1	0	1	24	23	42	43	-2.3
Shigella Rate ¹	0.5	1.2	0.8	0.8	0.4	0.7	0.2	-	0.3	0.6	0.5	1.0	1.0	
Vibrio cholera	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Vibrio, other	3	0	0	0	0	0	0	0	1	4	0	4	1	+300
Other														
<i>H. influenzae</i> (other)	0	0	1	0	0	0	1	0	0	2	4	6	11	-45.5
N. Meningitidis	7	0	0	1	0	0	0	0	0	8	7	27	21	+28.6
Tuberculosis	12	7	3	7	7	2	4	5	0	47	69	88	115	-23

1 = Cases Per 100,000

2 = These totals reflect cumulative totals of HIV+ and AIDS cases.

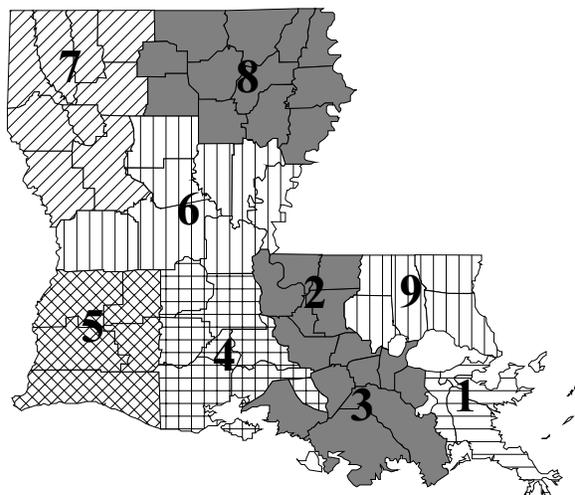
Table 2. Diseases of Low Frequency

Disease	Total to Date
Blastomycosis	0
E. coli O157:H7	2
Histoplasmosis	0
Lead Toxicity	5
Varicella	73
Rocky Mountain Spotted Fever	0
Legionellosis	0
Lyme Disease	0
Malaria	2
Tetanus	0

Table 3. Animal Rabies (March - April 1999)

Parish	No. Cases	Species
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No rabies reports for this quarter.

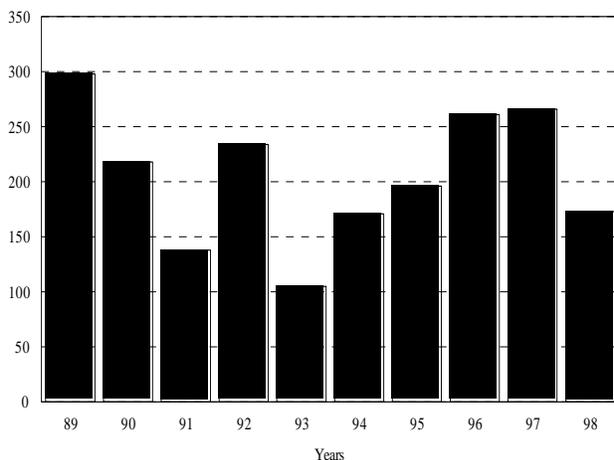


Annual Summary

Hepatitis A - 1998

The number of hepatitis A cases reported to the Infectious Disease Epidemiology Section in 1998 decreased by 35% from 1997 (Figure 1) and represents the lowest number of cases reported in Louisiana since 1994. The overall state rate was 4.0 per 100,000. Sex-race specific rates per 100,000 were highest among Caucasian females (4.3) followed by African American females (3.6). Overall, Caucasians accounted for 58% of all reported cases. Rates by age groups were highest among three different age groups: 5 - 9 years (5.5/100,000), 20 -24 years and 55 - 64 years (4.8/100,000 each, Figure 2). Parishes reporting the highest case rates and quadrupling the overall state case rate per 100,00 include: Acadia (49), Jefferson Davis (19), Ouachita and Vernon, (18 each, Figure 3). Approximately half of the total number of cases had reported case information. Fifty-nine persons developed jaundice (67%); 17 cases (19%) were hospitalized; 8 cases (9.6%) were reported in children attending daycare; 27 cases (33%) resulted from being a contact of a hepatitis A case, of which 77% were household related. An outbreak of hepatitis A was identified in Region 4 of which the exposure may have been associated with a food festival in combination with person-to-person transmission.

Figure 1: Cases of hepatitis A by year, 1989-1998



Comment:

Hepatitis A vaccine is being offered in OPH clinics for those areas which exceed the state case rate and have been determined to be a hyperendemic site such as Ouachita parish. Any individual who chooses to reduce the risk of acquiring hepatitis A disease, such as for those traveling internationally or day care employees, should contact their primary physician to obtain Hepatitis A vaccine.

Figure 2: Cases of hepatitis A by age group and sex, 1998

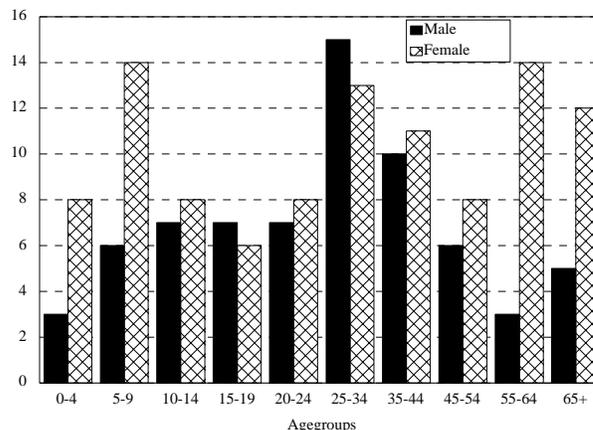
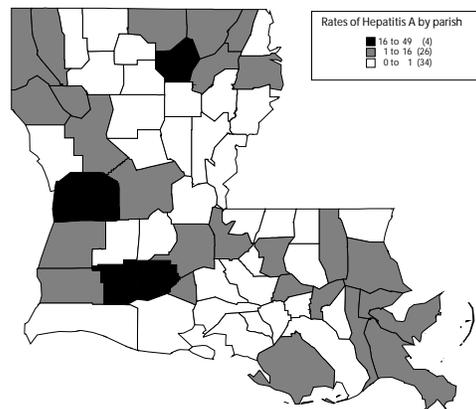


Figure 3: Rates of hepatitis A by parish, 1998



Louisiana Fact

In 1942, the Section of Industrial Hygiene was added to the State Health Department. "Its function was to study and control industrial conditions which endangered the health and efficiency of the worker." This Section served in a fact-finding and advisory capacity and assisted the industry by recognizing and controlling hazards to workers' health. Some of the early activities included:

- recommending industries provide adequate medical and nursing personnel, well-equipped dispensaries, periodic physical exams and analysis of lost-time records
- assisted in programs aimed at controlling communicable diseases (esp. TB and syphilis)
- conducted engineering studies to detect and evaluate health hazards caused by exposure to dusts, gases, vapors, fumes, mist, sprays
- promoted occupational disease reporting to encourage improvement in safety departments by keeping and analyzing accident records and educating workers on safety practices.

Taken from the Progressive Years by Gordon Gillson (page 368)

LIST OF REPORTABLE DISEASES/CONDITIONS

REPORTABLE DISEASES		OTHER REPORTABLE CONDITIONS	
Acquired Immune Deficiency Syndrome (AIDS)	Hepatitis, Acute (A, B, C, Other)	Rubella (German measles)	Cancer
Amebiasis	Hepatitis B carriage in pregnancy	Rubella (congenital syndrome)	Complications of abortion
Arthropod-borne encephalitis (Specify type)	Herpes (neonatal)	Salmonellosis	Congenital hypothyroidism*
Blastomycosis	Human Immunodeficiency Virus (HIV) infection ³	Shigellosis	Severe traumatic head injury**
Botulism ¹	Legionellosis	Staphylococcus aureus (infection; resistant to methicillin/oxacillin or vancomycin)	Galactosemia*
Campylobacteriosis	Lyme Disease	Streptococcus pneumoniae (infection; resistant to penicillin)	Hemophilia*
Chancroid ²	Lymphogranuloma venereum ²	Syphilis ²	Lead Poisoning
Chlamydial infection ²	Malaria	Tetanus	Phenylketonuria*
Cholera ¹	Measles (rubeola) ¹	Tuberculosis ⁴	Reye's Syndrome
Cryptosporidiosis	Meningitis, other bacterial or fungal	Typhoid fever	Severe under nutrition (severe anemia, failure to thrive)
Diphtheria	Mumps	Varicella (chickenpox)	Sickle cell disease (newborns)*
Enterococcus (infection; resistant to vancomycin)	Mycobacteriosis, atypical ⁴	Vibrio infections (excluding cholera) ¹	Spinal cord injury**
Escherichia coli 0157:H7 infection	Neisseria meningitidis infection ¹		Sudden infant death syndrome (SIDS)
Gonorrhea ²	Pertussis		
Haemophilus influenzae infection ¹	Rabies (animal & man)		
Hemolytic-Uremic Syndrome	Rocky Mountain Spotted Fever (RMSF)		

Case reports not requiring special reporting instructions (see below) can be reported by Confidential Disease Case Report forms (2430), facsimile, phone reports, or electronic transmission.

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.

All reportable diseases and conditions other than the venereal diseases, tuberculosis and those conditions with *'s should be reported on an EPI-2430 card and forwarded to the local parish health unit or the Epidemiology Section, P.O. Box 60630, New Orleans, LA 70160, Phone: 504-568-5005 or 1-800-256-2748 or FAX: 504-568-5006.

* Report to the Louisiana Genetic Diseases Program Office by telephone (504) 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.

Numbers for reporting communicable diseases

1-800-256-2748

Local # 568-5005

FAX # 504-568-5006

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.

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