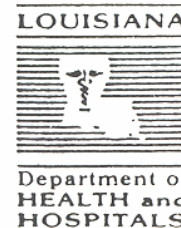




Edwin W. Edwards
GOVERNOR

Louisiana Morbidity Report

Louisiana Office of Public Health - Epidemiology Section
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J. Christopher Pillemer
SECRETARY

March-April 1993

Volume 4 Number 2

Vibrio Infection in Louisiana

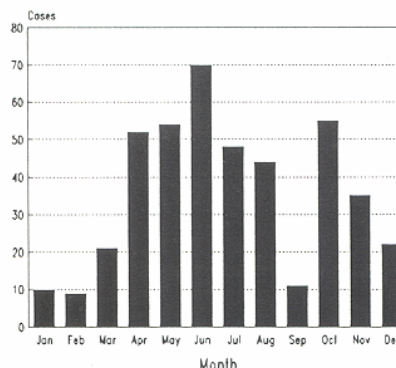
Louisiana has a particularly high incidence of infection caused by *Vibrio* species. *Vibrios* are important pathogens in Louisiana because of the combination of climate, recreational activities and dietary preferences. Raw oysters, fresh-caught crabs and crawfish are staples of the southern Louisiana diet; while boating, fishing and swimming are common pastimes in the warm subtropical climate. The large number of vibrio cases reported to the Louisiana Office of Public Health provide an opportunity to review the spectrum of disease associated with the various species and to examine their seasonality and geography in Louisiana. Reporting of vibrio infections was mandated in Louisiana in 1989, but had been common prior to that.

A total of 472 cases of vibrio illness were reported to the Louisiana State Health Department from 1974 through December 1992. These represent infections with any of 11 different vibrio organisms (*alginolyticus*, *cholerae* 01, *cholerae* non-01, *damnsela*, *fluvialis*, *hollisae*, *mimicus*, *parahaemolyticus*, *vulnificus*, *carcariae* and *harveyi*) as well as cases involving multiple vibrios. Three species, *cholerae* non-01, *parahaemolyticus* and *vulnificus*, accounted for 74% of the cases.

The parish of residence was known in 58% of cases. Of those, 58% of the cases occurred in one of 3 parishes: Orleans, Jefferson, or St. Tammany.

Seasonality varied among species. However, a clear seasonal pattern with increased cases during the hotter months was seen with most species (Figure).

Figure: Vibrio infections by month of onset, 1974-1992



Gastrointestinal disease was the predominant illness type overall, occurring in 271 of 472 (57%) of cases. Wound infection was the second most common diagnostic category (17%) and primary septicemia was the third most common (12%). *Vulnificus* and *alginolyticus* were particularly associated with wound infections or primary septicemia (Table). Most other species were associated most often with gastrointestinal infection.

It is known that many vibrio infections go unreported, for a variety of reasons. Many cases are subclinical or very mild and never come to medical attention.

Seafood ingestion, particularly raw oysters, were frequently seen in infections with *V. mimicus*, *hollisae*, *fluvialis*, *parahaemolyticus* and *cholerae* non-01. Crawfish ingestion may be a separate risk for *parahaemolyticus*, although this is of far less importance than oysters.

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Table: Vibrio infections by species and clinical diagnosis, 1974-1992

	GI		Wound		Primary		Other/		Total
	#	%	Infect	# %	Sepsis	# %	Unknown	# %	
Algi	3	(25)	5	(42)	0	(0)	4	(33)	12
Chol 01	11	(79)	0	(0)	0	(0)	3	(21)	14
Dams	0	(0)	3	(100)	0	(0)	0	(0)	3
Fluv	6	(60)	2	(20)	0	(0)	2	(20)	10
Holl	13	(76)	0	(0)	1	(6)	3	(18)	17
Mimi	33	(17)	0	(0)	1	(2)	9	(21)	43
Non01 Chol	111	(78)	5	(3)	9	(6)	15	(12)	143
Para	74	(62)	20	(17)	1	(1)	24	(21)	119
Vuln	10	(11)	34	(39)	42	(48)	1	(1)	87
Multiple	10	(42)	12	(50)	1	(4)	1	(4)	24
	271		80		55		65		472

HIV Reporting

On February 20, 1993, Human Immunodeficiency Virus (HIV) infection became a reportable disease. The Office of Public Health has made this addition to the list of reportable diseases for three major reasons. The first is to improve surveillance for the targeting of prevention efforts by picking up cases closer to infection rather than an average of 10 years after infection (as is the case with AIDS surveillance). The second is to make sure that individuals who are infected have access to and are aware of the availability of early care for HIV infection prior to the development of AIDS. The third reason is to improve the system of partner notification so that exposed partners can be tested and receive early care or can be counseled to avoid risky behaviors if they are not infected. All partner notification is done by STD staff trained in partner notification techniques for syphilis surveillance. They are extensively trained and do not reveal the name of the infected individual to the contacts identified.

HIV infection can be defined as a positive test for HIV antibody or antigen, including ELISA with Western Blot, PCR, HIV culture or other tests used to identify these antibodies or antigens. A positive antibody test alone would not be sufficient for diagnosis in an infant under 16 months of age.

Reporting should be done using a Lab 94 (Retroviral) form from the Office of Public Health or by contacting HIV/AIDS Surveillance at P.O. Box 60630, New Orleans, LA 70160, phone (504) 568-5013 or your regional AIDS Surveillance staff.

Reporting may be done by name or without name or street address. State, ZIP Code and demographic data will need to be reported on each case.

AIDS cases should be reported separately. Federal and state funding for the care of HIV-infected or AIDS-diagnosed individuals continues to be tied to total AIDS cases.

Reporting Communicable Diseases: What's the Point?

All health care providers are required by law in Louisiana to report cases of selected diseases. This disease reporting is the backbone of disease surveillance in Louisiana, as it is throughout the United States. If public health officials are to respond in a useful, meaningful way to initiate investigations and institute control measures, we need to be aware of what is occurring in the community. We must, therefore, rely on those health care providers that observe, treat, or diagnose notifiable diseases. Reports are supplied to the OPH central office by all types of health care providers; in recent years, approximately 55% of reports were sent to us by hospitals (usually infection control practitioners), 21% by physicians, and 20% by parish health units. Increased emphasis has been placed on confidentiality resulting in Act No. 59 of the 1990

Legislature which states that "No part of the confidential data shall be available for subpoena nor shall it be disclosed, discoverable, or compelled to be produced in any civil, criminal, administrative, or other proceeding, nor shall such records be deemed admissible as evidence in any civil, criminal, administrative, or other tribunal or court for any reason."

The information provided in disease reports is used in several ways: The summary data are used for health planning, policy making, and research. Individual case reports of certain diseases - such as tuberculosis and syphilis - receive follow-up to ensure that persons exposed to them receive preventive therapy. Reports of some infectious diseases such as measles, salmonellosis, and vibrio infections can lead to identification of disease outbreaks that can then be controlled. Reports also can be used to identify groups at high risk, prompting intervention efforts targeted at those groups.

Health care providers who identify patients with communicable diseases should ask questions of public health importance. The patient should be considered in the context of the family and the community as a whole. For example, patients with hepatitis A should be asked whether they work in restaurants; timely intervention in such situations can prevent disease outbreaks such as occurred recently in Louisiana (see Louisiana Morbidity Report, Volume 3, Number 5).

The Epidemiology Section has established a toll free number for reporting communicable diseases (1-800-256-2748). Physicians may also report to their local parish health unit.

Louisiana Morbidity Report Volume 4 Number 2 March-April 1993

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Injuries to Oil Drilling Workers

Occupationally related death rates among workers involved in oil and gas extraction activities have been higher than rates for workers from all U.S. industries combined. To develop improved strategies for preventing fatal injuries (FIs) and non-fatal injuries (NFIs) among petroleum drilling workers, the Louisiana Office of Public Health (OPH) analyzed data on injuries submitted voluntarily by oil drilling companies to the International Association of Drilling Contractors for 1988-90.

Of the 5251 reports, 5218 (99%) involved non-fatal (NFIs) (Table 1) representing an overall 3-year rate for NFIs of 1.2 per 100 FTEs. Rates of NFI were higher on water than on land for the United States (2.5 versus 1.9) and non-U.S. (1.2 versus 0.2). Injuries to the upper extremities accounted for the largest proportion of reported NFIs (1631 [31%]).

Thirty-three (0.6%) reports were of fatal injuries (FIs), representing an overall 3 year rate of 7.5 per 100,000 FTEs. Combined rates for land and water were similar for U.S. and non-U.S. sites. However, in both locations, FIs occurred more commonly on water than on land. Head and neck injuries accounted for the greatest proportion (11 [33%]) of reported FIs.

Three job categories—floormen, roustabouts, and derrickmen—accounted for 3883 (74%) NFI reports and 21 (64%) FI reports. Rates of reported NFIs and FIs were 4-10.5

times higher among these workers than for other workers (Table 2).

The national health objectives for the year 2000 target the reduction of deaths from FIs among mine workers (which includes oil and gas drilling workers) to no more than 21 per 100,000 FTEs and the reduction of NFIs to 6 per 100 FTEs. The year 2000 objective for FIs in the group is the highest target set among all U.S. workers and reflects recognition of the high risk for FIs among mine workers. The findings in this study suggest that overall NFI and FI rates for U.S. petroleum drilling workers are below these objectives.

Although rates of reported FIs in this study were similar for U.S. and non-U.S. workers, rates for reported NFIs were substantially higher for workers in the United States. Potential explanations for these differences include variations in work and safety conditions, working practices, reporting requirements and procedures, laws regarding compensation for work-related injuries, and medical care.

Safety education of workers remains an important aspect of injury prevention. Re-designing equipment and/or implementing changes in selected working practices may reduce injuries and deaths. The systematic collection of injury data by trade associations assists in injury-prevention efforts and is an important contribution to worker safety and health.

Table 1: Number and rate of petroleum drilling worker injuries, by geographic location, 1988-1990

	<u>Land</u>				<u>Water</u>				<u>Total</u>	
	<u>U.S.</u>		<u>Non-U.S.</u>		<u>U.S.</u>		<u>Non-U.S.</u>			
<u>Injury type</u>	<u>No.</u>	<u>Rate</u>	<u>No.</u>	<u>Rate</u>	<u>No.</u>	<u>Rate</u>	<u>No.</u>	<u>Rate</u>	<u>No.</u>	<u>Rate</u>
Neofatal*	3273	1.9	388	0.2	785	2.5	772	1.2	5218	1.2
Fatal**	7	4.0	7	3.9	6	19.2	13	20.3	33	7.5
Total	3280	1.9	395	0.2	791	2.5	785	1.2	5251	1.2

*Nonfatal injury rates per 100 full-time equivalents (FTEs); one FTE=2000 person-hours.

**Fatal injury rates per 100,000 FTEs.

Table 2: Number and rate of nonfatal injuries* and fatal injuries** among workers in the petroleum drilling industry, by occupation, 1988-1990

Occupation	Nonfatal injuries			Fatal injuries		
	No.	Rate	(RR***)	No.	Rate	(RR)
Floormen	2538	4.2	(10.5)	11	18.1	(5.0)
Roustabouts	600	3.4	(8.5)	46	33.9	(9.4)
Derrickmen	745	2.8	(7.0)	4	14.9	(4.0)
Other	1335	0.4	(Referent)	12	3.6	(Referent)
Total	5218	1.2		33	7.5	

*Nonfatal injury rates per 100 full-time equivalents (FTEs); one FTE=2000 person-hours.

**Fatal injury rates per 100,000 FTEs.

***Rate ratio.

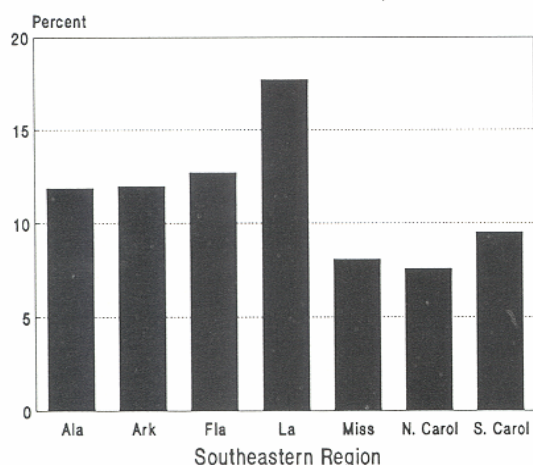
Alcohol Consumption in Louisiana

Patterns of alcohol consumption are of interest to Public Health because of its role in some cancers, liver disease, violent behavior, and unintentional injury, among other consequences.

Data on alcohol consumption from the Louisiana Behavioral Risk Factor Surveillance System for 1991 has been compared to similar data from other southern states. Questions of interest focus on three aspects of consumption. Chronic consumption is defined as 60 or more drinks during the last month. Acute consumption refers to drinking more than 5 drinks on an occasion one or more times during the last month. Another variable measured is self-reported "driving after having too much to drink, one or more times during the past month." Within the survey, a drink is defined as one beer, glass of wine, or highball.

Compared to neighboring states, Louisiana consistently ranked highest on the questions of interest. With acute drinking, North Carolina ranked lowest with 7.6% of the population reporting consumption of 5 or more drinks on one occasion in the last month. Louisiana ranked highest, and stood well above the others, with a percentage of 17.7% (Figure 1).

Figure 1: Percent of Louisiana residents drinking five or more drinks on one occasion, 1991



For chronic drinking, the average among the other southern states was about 2.5%. Louisiana reported the highest percentage of chronic drinkers with 4.5% of respondents stating they had consumed 60 or more drinks during the last month. South Carolina was lowest at 1.3% (Figure 2).

For drinking and driving, the Carolinas once again came in at the bottom of the list, averaging 1.5%, but 3.5% of respondents in Louisiana admitted to this very high risk behavior (Figure 3).

Excess alcohol consumption, as shown by these graphs, appears to be a greater public health problem than in neighboring states. Public health officials and health care providers may need to develop strategies to address this problem.

Figure 2: Percent of Louisiana residents drinking 60 or more drinks in one month, 1991

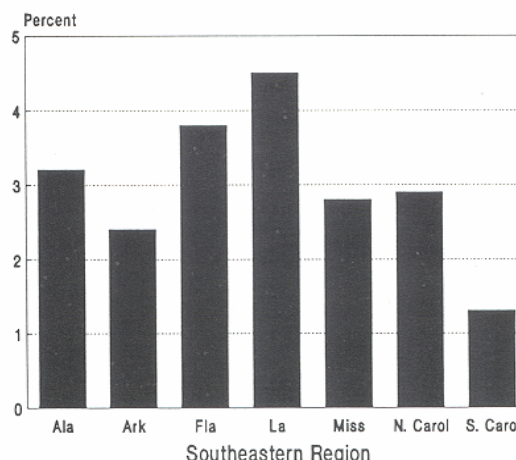
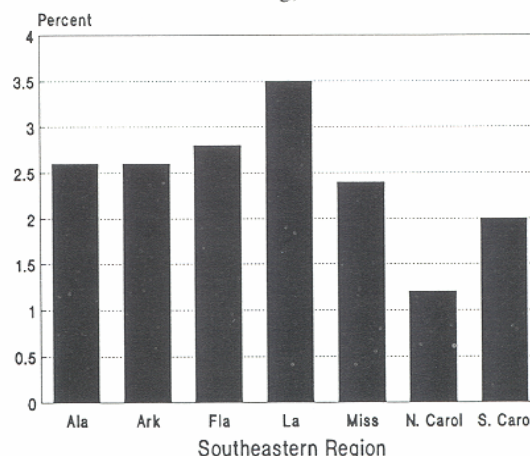


Figure 3: Percent of Louisiana residents drinking and driving, 1991



AIDS Update Urban Versus Rural Distribution

AIDS data was recently analyzed to compare urban and rural areas in Louisiana. To conform with Census Bureau standard definitions, metropolitan statistical areas were declared urban and all other areas were said to be rural.

The rate for AIDS cases is increasing in both urban and rural areas (Figure 1). Data was last analyzed in October 1992 and any decrease in rates for that year should be attributed to incomplete data. Although the rate for white males remains higher in urban than rural areas, it has been generally stable in both groups since 1989. Among white females the rates are similar between urban and rural groups, with little change since 1986 (Figures 2 & 3).

Figure 1: Rates of AIDS in urban and rural areas, 1986-1992

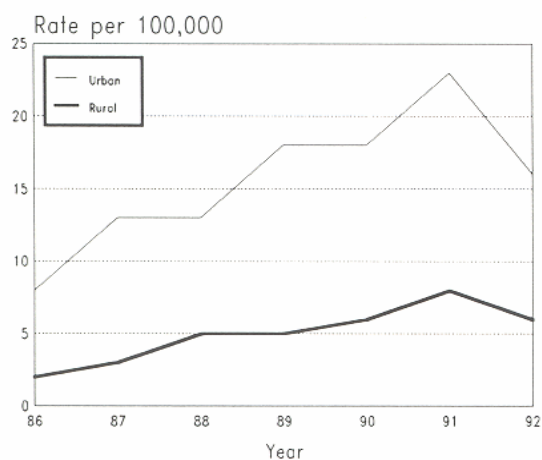


Figure 2: Rates of AIDS among males in urban and rural areas by race

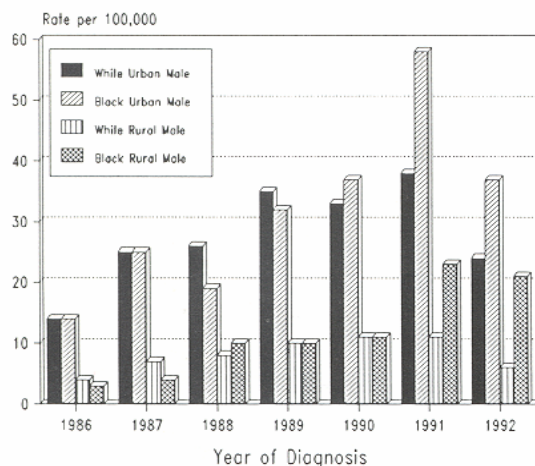
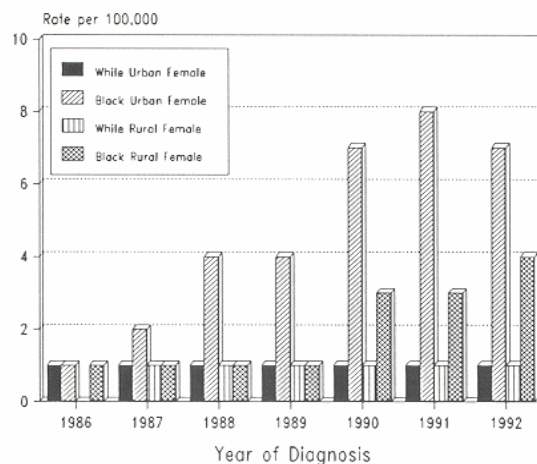


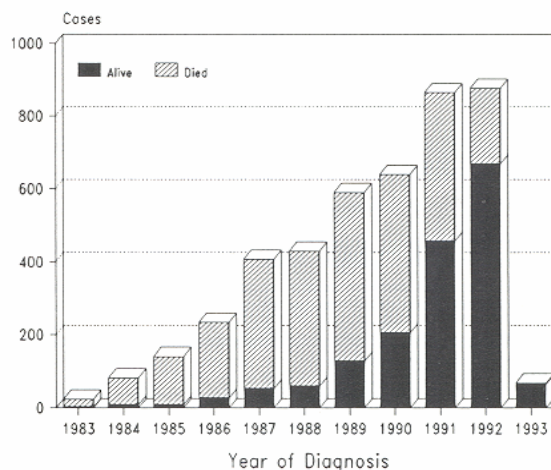
Figure 3: Rates of AIDS among females in urban and rural areas by race



In 1990, the rate among blacks began increasing in both urban and rural areas at a rate faster than that of whites. For blacks, the rate remains higher in urban than rural areas. The rate for rural black males, however, is increasing. Rates for both urban and rural black females are increasing faster than those of white females in either area (Figures 2 & 3).

In summary, among blacks AIDS is growing rapidly and shifting somewhat to rural areas. Among whites AIDS is showing signs of leveling off in all areas of the state.

AIDS Case Trends



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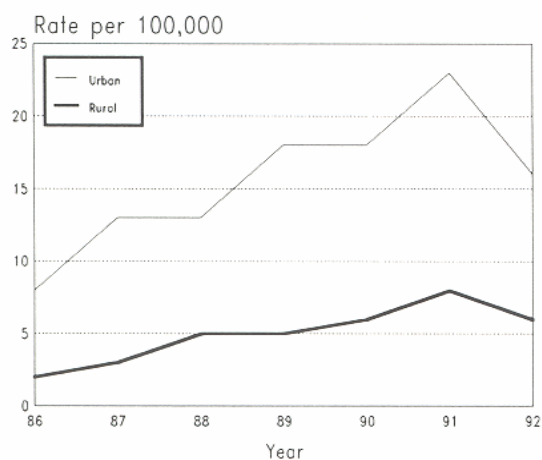


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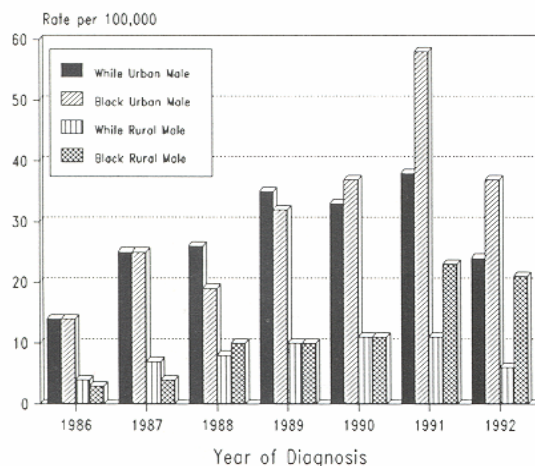
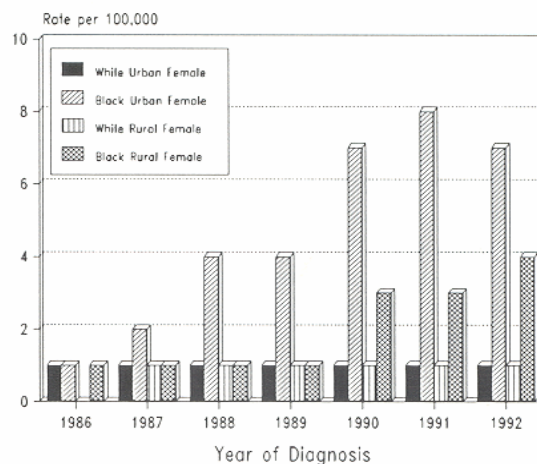


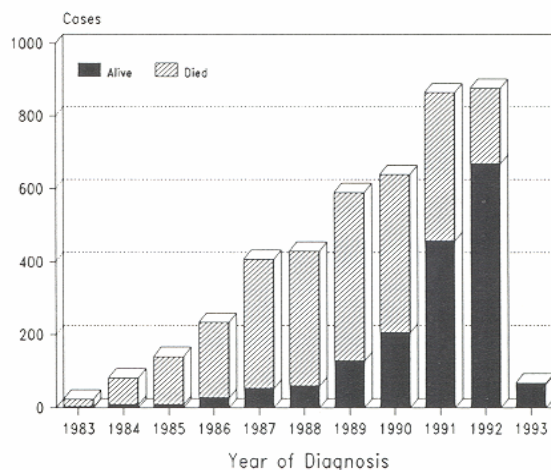
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AIDS Case Trends



Annual Summary Tuberculosis 1992

In 1992 there were 369 cases of tuberculosis reported, for a case rate of 8.7 per 100,000. The case rate for tuberculosis is virtually unchanged since 1984, when the decline seen in the previous thirty years stopped (Figure 1). As in previous years, case rates per 100,000 were higher in blacks than whites (15.2 vs 5.7) and higher in men than women (13.3 vs 4.4). The age group with the most rapidly increasing rates was 35-44 years (82 cases, 13.5 per 100,000; Figure 2). Among larger parishes, the highest case rates per 100,000 were seen in Orleans (23), St. Mary (19) and Ouachita parishes (18).

As of March 1993, HIV results was available on 188 (51%) of the 369 cases; of these, 48 (25%) were positive. The HIV-positivity was higher for persons in Orleans and Jefferson Parishes (37/84, 44%).

One case reported in 1992 had primary multi-drug resistance (resistant to INH and Rifampin).

Figure 1: Rates of tuberculosis in Louisiana and the U.S., 1960-1992

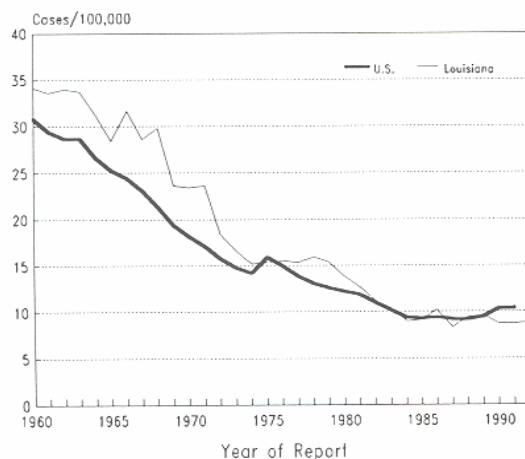
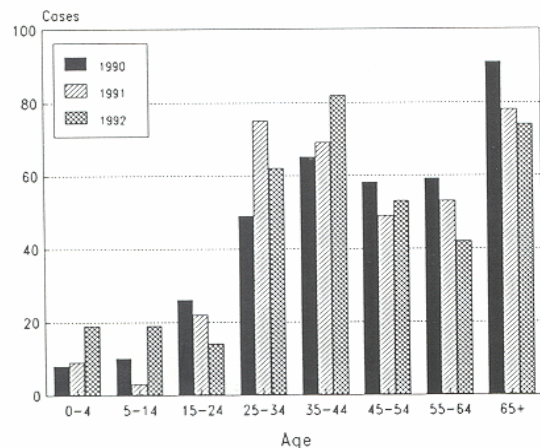


Figure 2: Cases of tuberculosis by age, 1990-1992



Comment:

The halt in the long-term decline in tuberculosis case rates signals a fundamental - if gradual - shift in the epidemiology of this disease. Tuberculosis has to a large extent affected older persons with reactivation disease. The influence of the HIV epidemic is to shift the disease to younger adults, particularly those at risk for HIV infection. Outbreaks of multidrug-resistant tuberculosis seen in other areas have not occurred in Louisiana so far. Efforts are underway to improve compliance of persons with drug-sensitive tuberculosis to limit the development of these resistant strains. These efforts focus on the use of "directly observed therapy" supervised by outreach workers.

Happy
Easter



LOUISIANA FACTS

Notice issued about 1878 apprising the public of the availability of free vaccinations.

VACCINATION.

TO THE PUBLIC.

THE BOARD OF HEALTH

Desire to inform the public that Small Pox has not yet disappeared from New Orleans, and that it is of the highest importance for preventive measures to be used in season to obviate another epidemic during the approaching winter. The establishment of Dr. DE ZAYAS, at No. 1 Carondelet Street, for vaccination with bovine virus, supplies a want greatly felt in this community, and is fully recommended by this Board to the patronage of the public.

Those desirous of free vaccination are notified that the several SANITARY INSPECTORS will hereafter be prepared to vaccinate gratuitously all applicants with bovine virus at the places and time subjoined:

On Wednesday and Saturday

of every week, from 1 o'clock to 2 o'clock, P. M.:

- Dr. EDWIN SCHLATER, 203 Calhoun Street, First District.
- Dr. A. LANDRY, 132 St. Peter Street, Second District.
- Dr. HENRY BEZOU, Police Station, Elysian Fields Street, Third District.
- Dr. JOSEPH HOLT, 754 Magazine Street, Fourth District.
- Dr. J. H. MAGRUDER, Court House, Algiers, Fifth District.
- Dr. R. A. BAILEY, Seventh Precinct Station, Sixth District.
- Dr. WILLIAM H. WATKINS, Court House, Carrollton, Seventh District.

SAM. CHOPPIN, M.D.,
PRESIDENT BOARD OF HEALTH.

LIST OF REPORTABLE DISEASES/CONDITIONS

	REPORTABLE DISEASES		OTHER REPORTABLE CONDITIONS
Acquired Immune Deficiency Syndrome (AIDS)	Gonorrhea**	Plague*	Cancer
Amebiasis	Granuloma Inguinale**	Polio myelitis	Complications of abortion
Anthrax	Hepatitis, (Specify type)	Psittacosis	Congenital hypothyroidism
Aseptic meningitis	Herpes (genitalis/neonatal)**	Rabies (animal & man)	Lead poisoning
Blastomycosis	Legionellosis	Rocky Mountain Spotted Fever	Phenylketonuria
Botulism*	Leprosy	Rubella (German measles)*	Reye Syndrome
Brucellosis	Leptospirosis	Rubella (Congenital syndrome)	Severe Traumatic Head Injuries+
Campylobacteriosis	Lyme Disease	Salmonellosis	Severe undernutrition severe anemia, failure to thrive
Chancroid**	Lymphogranuloma venereum**	Shigellosis	Sickle cell disease (newborns)
Cholera*	Malaria	Syphilis**	Spinal cord injury+
Chlamydial infection**	Measles (rubeola)*	Tetanus	Sudden infant death syndrome (SIDS)
Diphtheria*	Meningitis, Haemophilus	Trichinosis	
Encephalitis (Specify primary or post-infectious)	Meningococcal Infection (including meningitis)*	Tuberculosis***	
Erythema infectiosum (Fifth Disease)	Mumps	Tularemia	
Foodborne illness*	Mycobacteriosis, atypical***	Typhoid fever	
Genital warts**	Ophthalmia neonatorum*	Typhus fever, murine (fleaborne endemic)	
	Pertussis (whooping cough)	Vibrio infections (excluding cholera)	
		Yellow fever	

Report cases on green EPI-2430 card unless indicated otherwise below.

*Report suspected cases immediately by telephone. In addition, report all cases of rare or exotic communicable diseases and all outbreaks.

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

***Report on CDC 72.5 (f 5.2431) card

+ Report on DDP-3 form; preliminary phone report from ER encouraged (568-2509).

The toll free number for reporting communicable diseases is
1-800-256-2748

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