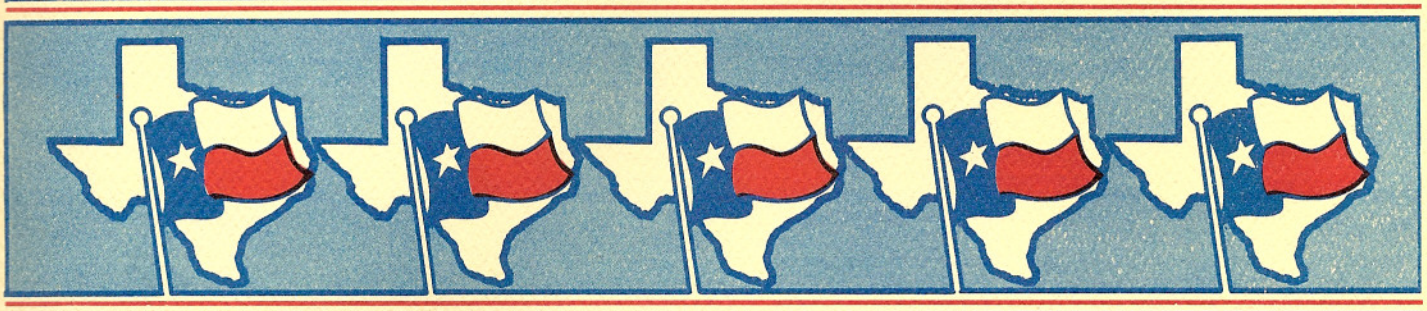
Reported Morbidity and Mortality in Texas



1982 Annual Summary

Texas Department of Health
Bureau of Epidemiology

August 1983/Vol. 5

REPORTED MORBIDITY AND MORTALITY IN TEXAS 1982 ANNUAL SUMMARY

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INTRODUCTION

HISTORICAL BACKGROUND

The first State Health Officer was appointed by the Governor of Texas in 1879 at a time when public health work was limited principally to quarantine; this action led to the creation of the Texas Quarantine Department in 1891. The department was reorganized in 1903 as the Department of Public Health and Vital Statistics, and again in 1929 as the State Health Department. In 1910, a year after the first State Board of Health was appointed, public health laws which required the reporting of certain communicable diseases were passed by the Texas State Legislature. In May 1920, the procedures for the reporting and management of communicable diseases in Texas became operative. Since that time, a surveillance system based on the communicable disease reports originating with practicing physicians and forwarded each week from designated reporting agents has served as the primary mechanism for the collection of morbidity data for the Texas Department of Health.

THE REPORTING SYSTEM

Specific rules and regulations for the control of communicable diseases have been approved by the State Board of Health under the legal authority vested in them by Articles 4418a, 4419, and 4477 of the Texas Revised Civil Statutes. These include the designation of certain diseases as "reportable" as well as the establishment of the mechanics for reporting communicable diseases, control measures, and the use of quarantine procedures.

The reporting system, coordinated by the Bureau of Epidemiology, Texas Department of Health, is made up of approximately five-hundred designated reporting agents within the state of Texas. Texas law requires that physicians report cases of communicable disease to these designated reporting agents, which include appointed city and county Health Officers, local city and county health departments, health districts, state schools, state hospitals, veterans' hospitals, and military installations. The Bureau of Epidemiology supplies report cards, Form C-15 (see Appendix), to reporting agents each week. The cards are then completed and returned to the Bureau of Epidemiology. Information regarding reportable diseases is also received by the Bureau of Epidemiology through other means including telephone calls, laboratory reports, completed case investigation forms, and death certificates which have been filed with the Bureau of Vital Statistics, Texas Department of Health.

Morbidity data are organized, recorded, and examined on a weekly basis to determine disease trends, including fluctuations in morbidity, seasonal variation, changes in disease distribution, and other aspects of the natural history of endemic and epidemic diseases. Each week morbidity data are published in Texas Preventable Disease News, a report which is distributed to local health authorities, reporting agents, and upon request to other health professionals. This publication also describes preventable disease control activities on local, state, and national levels.

The communicable disease reporting system in Texas is essential to the successful prevention and control of certain communicable diseases which threaten the lives and well-being of the citizens of Texas. Early detection of unusual characteristics or patterns of reportable diseases often provides sufficient evidence to warrant the initiation of preventive measures. In addition to statewide reporting, cooperative efforts in the area of communicable disease control are made with other state health departments and the national Centers for Disease Control, Atlanta, Georgia. These efforts contribute to an effective overall communicable disease prevention and control program for the nation.

OTHER SOURCES OF DATA

Data submitted to the Bureau of Epidemiology through the statewide morbidity reporting system are supplemented by other data collection procedures and surveillance activities of the Tuberculosis .Services Division, the Infectious Disease Control Division, the Immunization Division, the Bureau of Veterinary Public Health, the the Bureau of Vital Statistics, and the Bureau of Laboratories.

The population figures for 1973-1980 used in computing incidence rates for the state are from the Current Population Report, Series P-25, published by the Federal Bureau of the Census. The population figures for 1981 and 1982 were provided by the Bureau of State Health Planning and Resource Development, Texas Department of Health. Please note that the 1982 provisional Texas population figure (14,944,000) reflects an increase of 1.8% over the 1981 state population (14,680,000).

The mortality data which appear in Table III, Appendix, are computer tabulations provided by the Statistical Services Division. Bureau of Vital Statistics, and may not be identical to the mortality data referred to in the summaries of individual diseases. These small discrepancies may be due in part to the procedures established by the Ninth Revision of the International Classification of Diseases whereby the category to

which the death is assigned is determined by the information provided on the death certificate.

The completeness of disease reporting by physicians and of the morbidity data published in this report is influenced by the interests and priorities of the various reporting agents for disease control and surveillance; however, the degree of underreporting is thought to remain relatively consistent with a slow but steady trend toward completeness. This allows data comparison over the years.

SELECTED DISEASE SUMMARIES

AMEBIASIS

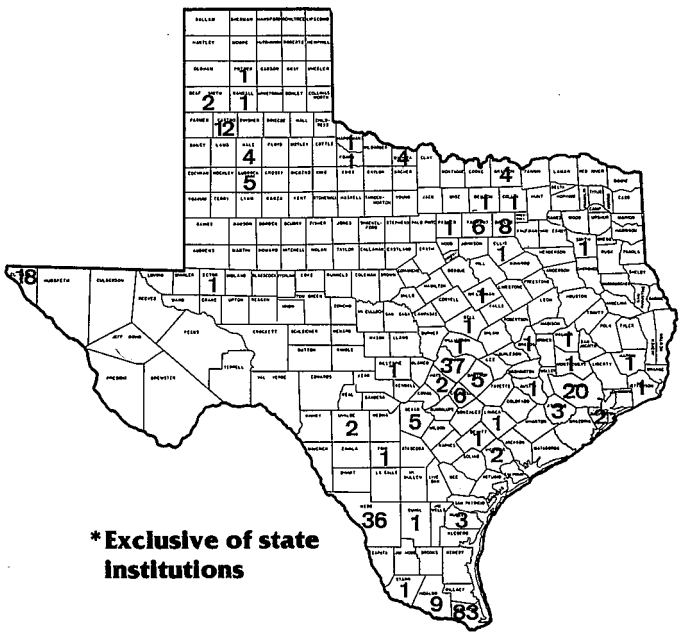
Amebiasis is an infection of the large intestine with the protozoan parasite, Entamoeba histolytica. The organism exists in two forms: the hardy, infective cyst and the more fragile, potentially invasive trophozoite. Infected individuals may be asymptomatic, or the ameba may produce diseases ranging from chronic, mild diarrhea to fulminant dysentery. Blood stream dissemination may occur infrequently, producing abscesses of the liver or even less commonly of the brain and lung. Man is the principal host, and no animal reservoir is known.

Infection occurs through the ingestion of the amoebic cysts present in food or water contaminated by feces from infected individuals. Sexual transmission, particularly among male homosexuals, is also possible by oral-rectal contact. In the United States, transmission of amebiasis is rare except among individuals with significant fecal-oral exposures such as residents of mental institutions and certain homosexual males.

During 1982, the Texas Department of Health received reports of 493 amebiasis infections, an 18.4% decrease from the 604 cases reported in 1981. Statewide, 190 (or 38.5%) cases were residents of institutions for the mentally and/or developmentally retarded. Because residents of these institutions are considered a high-risk group, these cases have been excluded from Figure 1 which indicates the county distribution of .reported cases in Texas. The institutionalized cases occurred in Travis County (100 cases), Ft. Bend County (41 cases), Limestone County (41 cases), Tarrant County (7 cases), and Denton County (1 case).

Figure 1

Reported Cases* Of Amebiasis In Texas By County Of Residence, 1982



As in previous years, males continued to account for more cases (339) than females (151). This preponderance of males is difficult to explain, but most of the affected residents of state institutions are male. The racial/ethnic distribution of cases in 1982 included 171 cases reported as white, 211 as Hispanic, 24 as black, 9 as Asian/Pacific Islander, and 78 for whom race was not indicated. All age groups were included among the reported cases, with the 25-34 year-old age group accounting for the largest percentage (21.7%) of infections.

ARBOMRAL INFECTIONS

Twenty-four arboviral infections were reported in Texas residents during 1982. Two of these were caused by dengue virus, four were caused by western equine encephalitis virus, and the remaining eighteen by St. Louis Encephalitis virus. Both dengue infections occurred in travelers returning from Mexico; all other infections were acquired in Texas.

Dengue

The first case of dengue occurred in a Texas physician who, while in Mexico on a health-care mission had traveled through areas where dengue-like illness was being reported. He became ill in mid-July and returned to his home in San Antonio on the same day his illness began and was sick for three weeks. The second case was a child who returned to San Antonio from Mexico one week prior to the onset of his illness in late August. Dengue 1 virus was isolated from an acute blood sample. While in Mexico, six of his family members had been ill with dengue-like illness. Dengue was also diagnosed in a resident of Surinam who was visiting Houston at the time of onset of illness. All three of these individuals were in Texas during their viremic periods and were in cities where Aedes aegypti mosquitoes are common. Although there were no secondary cases, the potential for transmission exists.

Western Equine Encephalitis

All four of the persons infected with western equine encephalitis (WEE) virus were male. Three of them developed clinical encephalitis. These cases were 1, 4, and 87 years of age and resided in Lamb, Lubbock, and Hockley counties, respectively, all in Public Health Region 2 (Figure 2). The other WEE infection was diagnosed as aseptic meningitis. This individual was 15

Figure 2

Western Equine Encephalitis Virus Activity Texas, 1982

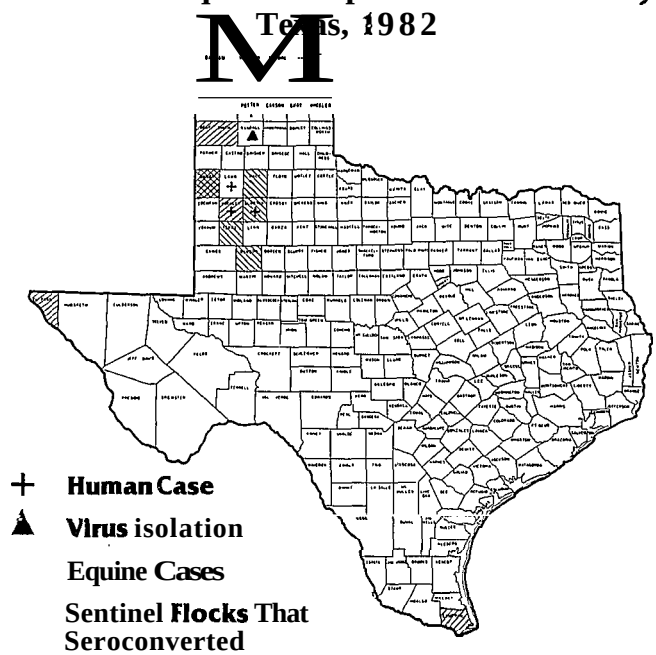
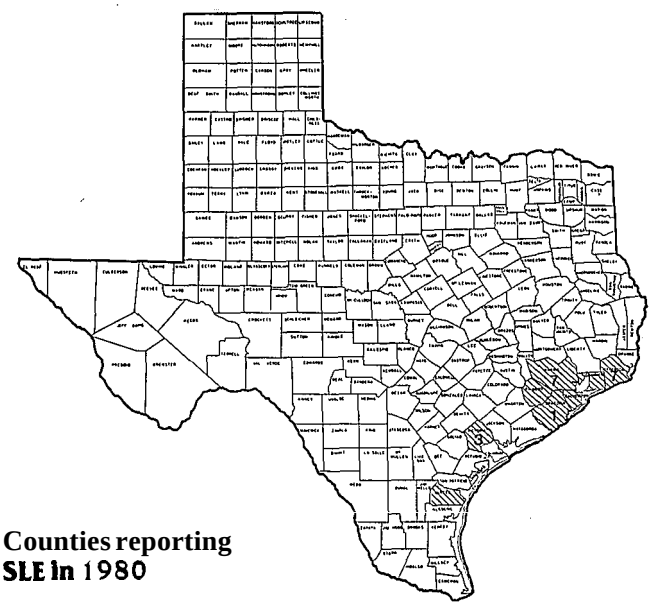


Figure 3

Reported Cases Of St. Louis Encephalitis In Texas By County Of Residence, 1982



years of age and a resident of Potter County, PHR 1. The only isolation of WEE virus during the summer of 1982 was from a pool of mosquitoes collected in September in Randall County, adjacent to Potter County. There was evidence of viral activity as-measured by antibody in sentinal flocks of chickens in Bailey, Dawson, Hale, Lubbock, and Terry counties from August to November. The human cases occurred in mi 6and late July, August, and early September. The number of equine WEE infections in 1982 was greatly reduced compared to the number in 1981; cases were reported from five counties in 1982 and 43 counties in 1981.

St. Louis Encephalitis

The 18 cases of St. Louis Encephalitis (SLE) virus infections reported in 1982 were distributed among the same counties that reported cases in 1980, when 69 cases were reported (Figure 3). Of the seven cases reported from Harris County, six resided within the city limits of Houston. At least 11 isolations of SLE virus were made by the Harris County Mosquito Control District from pools of Culex mosquitoes collected in storm sewers; at least one collection was made as early as August. Mosquito control measures were intensified at that time. Two of the cases in Harris County had onset of illness in August and the remaining five in September. The proportion of juvenile birds in Harris County with antibodies to SLE virus were as follows: 2116 2 (1.2%) in May, 2/360 (0.6%) in June, 21/602 (3.5%) in July, 201310 (6.5%) in September, 141241 (5.8%) in October, and 0111 (0%) in November.

All of the seven cases in Jefferson County resided in Beaumont. Five cases had onset during the first week in August. Mosquito control measures were intensified, and only two additional cases, with onsets in mid- and late September were reported. Neither of the latter cases lived within close proximity of the original case.

The age distribution of all cases ranged from 22 to 72 years. Six cases were female, and twelve were male. All of the cases had clinical encephalitis; three had seizures and were comatose. The only fatality among these cases was due to complications of aspiration pneumonia.

Only one isolation of SLE virus was made by the state laboratory in Austin. This was from a pool of Culex mosquitoes in Leon County in Public Health Region 6. No human infections were reported from this area.

Other Arboviral Infections

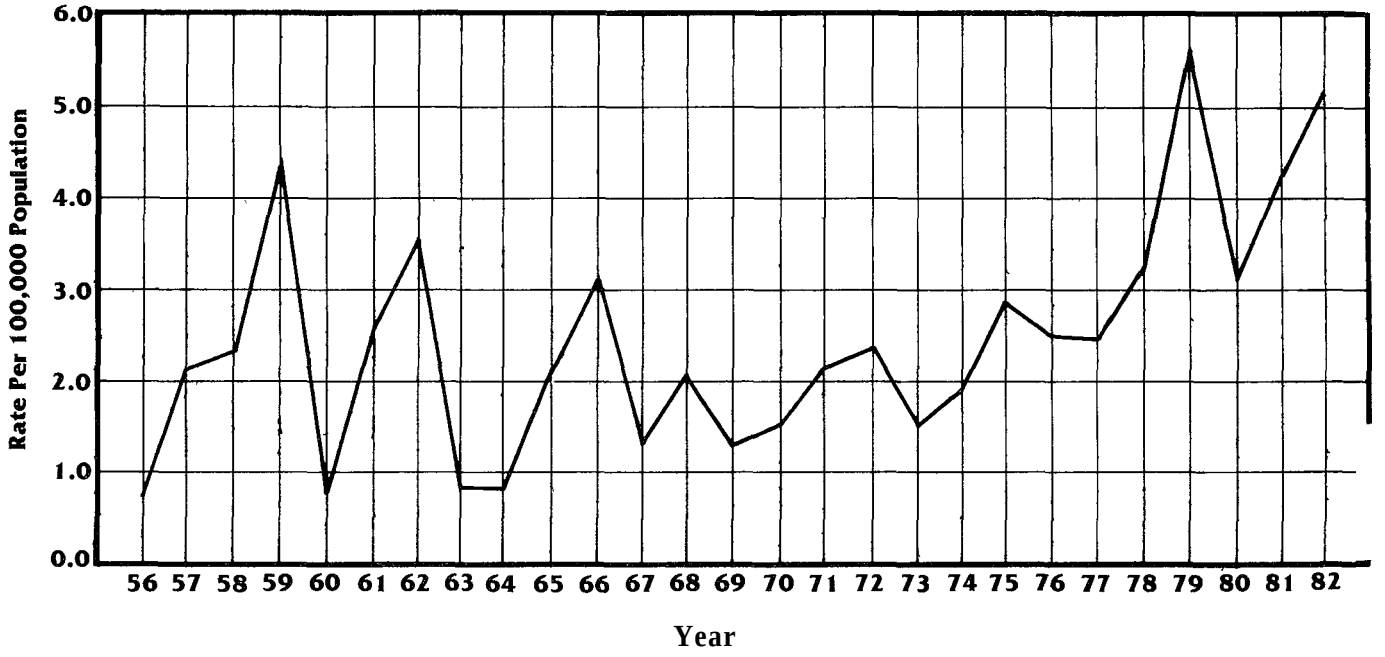
A 32-year-old, male resident of Texas developed encephalitis due to infection with an arbovirus, Japanese B virus, while serving in the United States Army in Korea. Another 32-year-old male, a resident of Houston, had serologic evidence of a group B arbovirus infection. It was not possible to determine which particular virus as the patient had spent most of his life in El Salvador where group B arboviral infections are common, thus this infection produced a generalized secondary response.

ASEPTIC MENINGITIS

Incidence rates for aseptic meningitis have been calculated for each year since 1956. The graphic presentation of these rates includes a series of peaks above a baseline of approximately one case per

Figure 4

Reported Cases of Aseptic Meningitis In Texas Per 100,000 Population, 1956 — 1982



100,000 population for the first 17 years and then an increase of the base rate to 2.5 - 3 cases per 100,000 (Figure 4). Although there are a number of causes of aseptic meningitis, the most common are enteroviruses; these peaks may represent outbreaks of particular enterovirus types. The highest peak, 5.63 per 100,000 was in 1979 when ECHO 11 was associated with increased numbers of cases nationwide. The incidence rate for 1982, 5.25 per 100,000, was elevated, and both ECHO 11 and ECHO 30 were prevalent in Texas.

The causative agent was identified in 90 (11.5%) of the 785 cases in 1982 compared to only 5 (0.8%) of the 622 cases in 1981. Enteroviruses were the most common isolates in both years but ECHO 11 and ECHO 30 were the most frequent in 1982 (Table 1). Also, the number of cases began to increase in May and remained elevated throughout the fall which is consistent with the typical distribution of enteroviral infections (Figure 5).

There was a significant difference in the distribution of cases by age; the general trend was that the numbers of cases decreased as age increased. The rates for individual ages within the following age groups — infants 0-11 months, 1-34 years, and 35 years and older — did not differ significantly. However, there was a significant difference between the rates for each of the three groups as a whole, 93.7 per 100,000, 5.64 per 100,000, and 0.83 per 100,000, respectively. This trend had also been observed in 1981. The incidence rate of less than one case per 100,000 for older age groups was the same; however, the rate for infants had

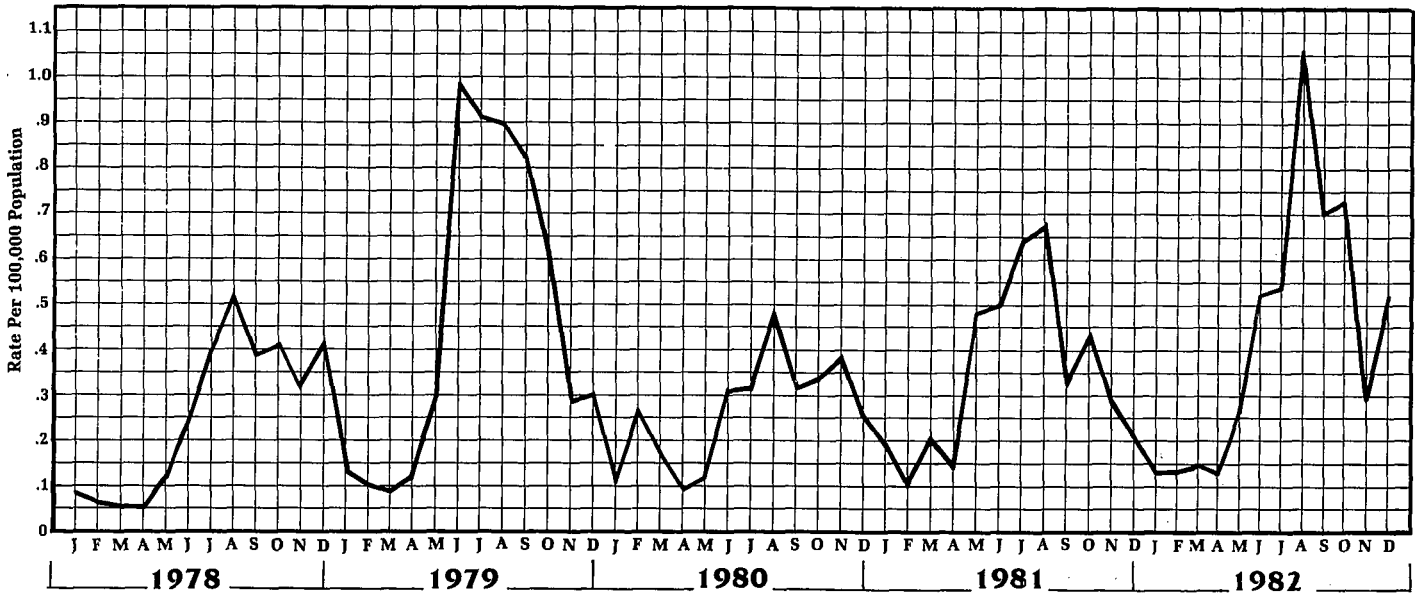
Table 1

Reported Cases of Aseptic Meningitis and Encephalitis Due To Entero -- And Other Viruses, Texas, 1982

VIRUS ISOLATED	ASEPTIC MENINGITIS	ENCEPHALITIS
Enteroviruses		
Coxsackie B Group	7	0
ECHO 9	13	1
ECHO 11	23	1
ECHO 30	19	4
Other ECHO	16	0
Adenovirus	0	1
Herpes Simplex	0	23
Varicel la-zoster	2	3
Hepatitis type A	0	1
Cytomegalovirus (CMV)	2	0
TOTAL	82	34
Percent of total number cases	10.4%	21.6%

Figure 5

Reported Cases of Aseptic Meningitis in Texas Per 100,000 Population By Month Of Report, 1978-1982



increased 25% over the rate of 75 per 100,000 reported in 1981. The sex distribution of cases also differed by age; males accounted for significantly more cases under the age of 10 ($p<0.01$)*.

The incidence rate also differed significantly on the basis of race/ethnicity. The individual rates of 4.41 per 100,000 for whites and 4.09 per 100,000 for Hispanics were similar and significantly lower than the 8.88 per 100,000 observed for blacks ($p<0.001$)**. The reason for the disparity in incidence rates between racial /ethnic groups is not clear.

The majority of cases is usually reported from urban areas. If the 24% increase in the incidence rate reflected a statewide change, then it would be expected that the rate for various urban counties would increase proportionally; however, this was not observed. The rate declined 38% to 1.36 per 100,000 in El Paso County. Increases of 30% to 7.54 per 100,000 in Harris County and 40% to 2.26 per 100,000 in Travis County were reported. Dallas and Tarrant counties combined reported elevated rates for the second year; the actual rate of 10.01 per 100,000 was 15% less than the 1981 rate. Bexar County reported the highest rate in 1982, 10.73 per 100,000, a 300% increase. Fluctuations in rates may be attributed to outbreaks of enteroviruses that are new to these communities. However, if the rates remain stable, but higher, it may reflect increased awareness and reporting.

* 99.9% confidence interval
** 99.0% confidence interval

Mortality due to aseptic meningitis continues to be low; only five (0.6%) of the cases died. Also, although enteroviruses are readily transmitted in the family situation, the host response to the viruses varies, and it is unusual to have more than one case of meningitis in a family. Only five families reported more than one case -husband and wife (1), father and daughter (1), children (1), and young adults (2). There was one each from Dallas, Ft. Stockton, Houston, Hurst, and Weatherford.

BOTULISM

Only one case of infant botulism was reported in Texas in 1982. This case involved a five-week-old, white male from Camp County (Public Health Region 7). The infant experienced symptoms characteristic of infant botulism: constipation, poor feeding, lethargy, altered cry, poor head control, general weakness, and difficulty breathing. He was admitted to a Titus County hospital where the diagnosis of infant botulism was made. Type B botulinal toxin was later identified in stool specimens submitted to the Texas Department of Health. He recovered and was released after a hospital stay of 26 days.

The dietary history revealed that the child was primarily breast fed but also had been given a commercially prepared infant formula on a regular basis. No other risk factors sometimes associated with infant botulism were present.

Three types of botulism, distinct both epidemiologically and clinically, are recognized: food-borne

botulism, an intoxication which results from the ingestion of preformed toxin produced in food by Clostridium botulinum, most commonly from the consumption of improperly preserved home-canned foods; wound botulism, an infection caused when the Cl. botulinum organisms multiply and produce toxin in a soil-contaminated wound; and infant botulism, an infection which results when Cl. botulinum spores germinate, producing organisms that elaborate toxin in the infant's intestine. This latter form of botulism is limited to children under one year of age in whom the illness cannot be traced to any home- or commercially canned foods.

Food-borne botulism and wound botulism have not been reported in Texas since 1979 when one case of each occurred.

BRUCELLOSIS

Brucellosis is a zoonosis, usually acquired as the result of exposure to infected animals or animal products. The Bureau of Epidemiology received reports of 27 cases of human brucellosis during 1982, 40% fewer cases than were reported during 1981. Figure 6 shows the number of cases in 1982 by county of residence.

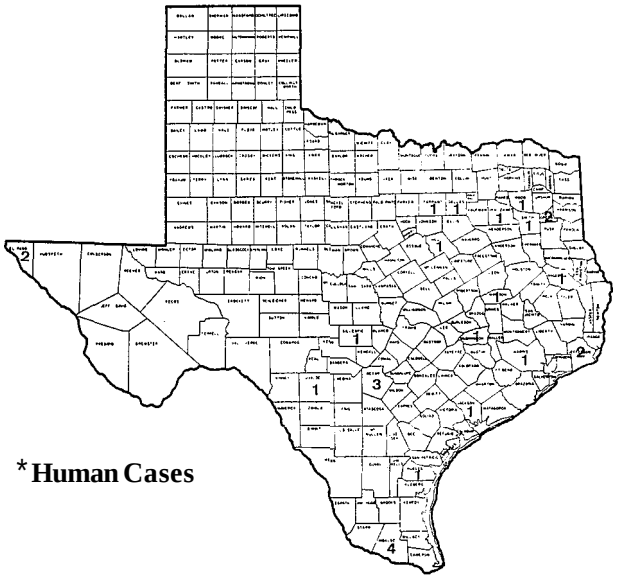
No major outbreaks were reported during 1982, though for the third time since 1980, both a husband and wife were reported as cases. In the first instance, each spouse had a different Brucella species (B. suis and B. canis) isolated from blood. In the second couple, B. suis was isolated from the blood of both husband and wife. They reported possible exposure through pork brought home from the abattoir where the husband was employed. The third couple had serologic confirmation of infection and reported consuming Mexican cheese.

Brucellosis transmission can occur in several ways that allow more than one person to be infected by a single source or exposure (through unpasteurized, contaminated dairy products, during abortion/parturition of infected animals, in abattoir employment), and physicians should remain alert to this possibility when considering or diagnosing brucellosis. Follow- up of the 27 cases reported in 1982 suggested occupational exposure in nine cases (33.3%), and consumption of dairy products (unpasteurized milk and cheese, often of Mexican origin) in eight other cases (29.6%). Other possible sources of exposure included pet dogs in the B. canis case (an 11-year-old female in Wood County), goat contact in Mexico (a 7-year-old male in Hidalgo County), pork from a packing plant (mentioned above), and non-occupational contact with cattle (a 43-year-old male in Smith County). The remaining six cases had no reported exposures consistent with brucellosis. However, in one case, although the patient specifically denied animal contact, he had B. suis isolated from blood, suggesting exposure to swine, or perhaps infectious pork products. Table 2 describes these cases.

The diagnosis of brucellosis was based on positive cultures in 11 cases. All four species of Brucella associated with human illness were represented: B. melitensis in six cases, B. abortus and B. suis in two cases each, and B. canis in one case. The other sixteen cases were confirmed serologically. B. melitensis generally produces the most severe illness in man and is the species associated with goat's milk cheese, often of Mexican origin. Five of six cases with B. melitensis isolated from blood had a history of consuming Mexican dairy products. The sixth B. melitensis infection was acquired by a hospital laboratory technician culturing the blood of a patient hospitalized with brucellosis.

Figure 6

Reported Cases of Brucellosis* In Texas By County of Residence, 1982



*Human Cases

Table 2

Reported Cases of Human Brucellosis in Texas By Sex and Type of Exposure, 1982

TYPE OF EXPOSURE	MALE	FEMALE	TOTAL	% OF TOTAL
Occupational				
Rancher/Animal Raiser	4	—	4	14.8%
Packing Plant Associated	2	—	2	7.4
Veterinarian	1	—	1	3.7
Laboratory Acquired		1	1	3.7
Other Occupational Exposure	1	—	1	3.7
Unpasteurized Dairy Products	4	4	8	29.6
Other Reported Exposures	2	2	4	14.8
Unknown Exposures	4	2	6	22.2
TOTAL	18	9	27	99.9%

Cases ranged in age from 5 to 81 years with a median age of 36; 63% of the cases were in the 20-60 age group. Eighteencaseswere male, and nine were female. The racial/ethnic distribution of cases included 13 cases reported as Hispanic, 12 as white, one as black, and one as Asian.

CHICKENPOX

Varicella (chickenpox)is usually a mild, self-limited illness of young children. The infection is spread by respiratory secretions or direct contact with vesicle fluid. Virus enters the respiratory tract, multiplies locally or in regional lymph nodes, produces a primary viremia, and isdisseminated in the bloodstream to internal organs. Further viral replication takes place followed by a secondary viremia and seeding of the cutaneous tissues. Fever occurs, followed within a day by a papular rash of the skin and mucous membranes. The total incubation period from exposure to onset of rash is generally 14 to 21 days. The papules become vesicular and are accompanied by itching. Natural infections are highly contagious, and multiple infections in a family are the rule.

Chickenpox is equally contagious among hospitalized patients, and the Texas Department of Health is consulted with increasing frequency about hospital exposures. Because of the many immuno-compromised children in hospitals today, prompt attention must be given to strict isolation of cases and administration of varicella-zoster immune globulin (VZIG) to exposed patients.

Chickenpox is reported to the Texas Department of Health on a weekly basis in numeric totals by agegroup, and a total of 11,050 case reports was received in 1982. The largest number of cases was reported in March, April, and May.

Four deaths due to varicella occurred in Texas during 1982. These individuals ranged in age from one month to 42 years and included three females and one male.

ENCEPHALITIS

A total of 157 cases of encephalitis was reported in Texas in 1982. Included in these reports were 34 cases due to the following viruses: (Alsosee Table 1, Aseptic Meningitis.)

Herpes simplex: Twenty-three (23)cases were due to infection with herpes simplexvirus. The case-fatalityratio continued to be high; twelve (52%)of the cases died. Eight (35%) of the cases were less than five years of age, and half of these were less than one-month old. The remaining cases ranged in age from 8 to 85 years.

Varicella-zoster: An eight-year-old male and a 25-year-old female developed encephalitis following chickenpox; the female also had Hodgltin's disease. The age of a third case was not reported, but the diagnosis was zoster encephalitis.

Enterovlruses: Four of the cases had infections with ECHO 30 virus and one each had ECHO 11 and ECHO 9. These viruses were the most common enteroviruses isolated in 1982 (see Aseptic Meningitis). There was one adult case, age 31; four cases were 3, 10, 10, and 11 years of age, respectively; and the age for one individual was not reported. These six cases were reported between late July and late September, the peak period of enteroviral activity in Texas.

Other viruses: One case, a two-year-old female, with onset of illness in April had encephalitisassociated with an adenovirus infection, which was demonstrated serologically. A 41-year-old male developed encephalitis coincident with an infection with hepatitis A virus.

The causitive agent of the 121 remaining cases was unknown. Children under the age of pne-had the highest incidence rate, but there were no other significant differences in terms of age or sex. There were 14 deaths for an overall case-fatality ratio of 12%.

ENTERIC INFECTIONS

Salmonellosis, Excluding Typhoid Fever

Salmonellosis is an acute infectious disease commonly manifested by a gastroenteritis, with colicky abdominal pain, fever, diarrhea lasting several days, nausea, and sometimes vomiting. Infection is usually limited to the acute gastroenteritis but on occasion may develop into enteric fever or rarely a focal infection. A very small percentage of patients may become chronic, asymptomatic carriers for a year or more after the initial infection. Antibiotic therapy of uncomplicated gastroenteritis is usually ineffective and may both lengthen the course of the disease (leading possibly to resistant strains)and increase the carrier rate.

The mode of transmission is through the ingestion of food which has been contaminated by feces of an infected person or animal, or by the consumption of contaminated raw eggs or egg products, dairy products, meats, or' poultry. Cases have also been traced to certain unsterilized pharmaceuticals of animal origin. Severity of the disease is related to the involved serotype, size of inoculum, and host factors. Deaths are uncommon except in the very young, the very old, or the patient with chronic disease.

In 1982, a total of 2,506 cases of salmonellosis was reported in Texas. The distribution of cases by

racelethnicity included 879 whites (35.1%), 673 Hispanics (26.9%), 137 blacks (5.5%), 27 (1.1%) Asian/Pacific Islanders, 5 (0.2%) American Indians, and 785 individuals for whom a designation was not made. More than half of the cases occurred in children under the age of ten (64.6%), with the largest number (629) reported in infants under one year of age. Cases were evenly distributed between males and females.

The numbers of cases and incidence rates of the disease in representative counties with populations of 200,000 or greater are shown in Table 3. The incidence rates attributed to individual counties varied throughout the state due to differences in reporting procedures in a given locale.

Table 3

Reported Cases And Incidence Rates Of Salmonellosis And Shigellosis For Selected Counties In Texas, 1982

		Salmonellosis		Shigellosis	
County	Population	Cases	Rate*	Cases	Rate*
Bexar	1,025,316	195	19.02	232	22.63
Cameron	229,139	42	18.33	89	38.84
Dallas	1,606,720	219	13.63	240	14.94
El Paso	513,302	99	19.29	97	18.90
Galveston	201,474	71	35.24	11	5.46
Harris	2,571,295	709	27.57	654	25.43
Hidalgo	311,966	37	11.86	59	18.91
Jefferson	250,901	38	15.14	15	5.98
Lubbock	216,772	51	23.53	42	19.38
Nueces	275,356	58	21.06	55	19.97
Tarrant	891,619	109	12.22	70	7.85
Travis	442,839	82	18.52	84	18.97

*per 100,000 population

Table 4

Reported Salmonella Serotypes Texas, 1982

Serotype (Species Enteritidis)	No. of Isolates	% of Isolates	Cumulative %
typhimurium	411	19.8%	19.8%
newport	372	17.9	37.7
javiana	184	8.8	46.5
heidelberg	104	5.0	51.5
montevideo	94	4.5	56.0
agona	60	2.9	58.9
infantis	56	2.7	61.6
oranienberg	49	2.4	64.0
thompson	34	1.6	65.6
enteritidis	32	1.5	67.1
87 other serotypes	685	32.9	100.0
TOTAL	2081	100.0%	—

*exclusive of S. typhi

Serotypes are known for 2,081 (83%) of the total cases reported for 1982. There were 97 different Salmonella serotypes reported by the Bureau of Laboratories in 1982. The ten most frequently isolated serotypes accounted for 67.1% of the total isolations (Table 4). As in the past, the most common serotype reported was Salmonella typhimurium, representing 19.8% of the total isolations.

Shigellosis

Shigellosis is an acute bacterial disease characterized by diarrhea, fever, cramps, tenesmus, nausea, and sometimes vomiting. In severe cases, stools may contain blood, mucus, and pus. In Texas, about half the cases are caused by Shigella sonnei, and half by S. flexneri. Shigellosis is primarily a disease of children, with most clinically apparent infections occurring in children under 10 years of age. Infection in the adult is frequently sub-clinical, and patients usually recover spontaneously in about a week. On the other hand, people suffering from malnutrition and elderly debilitated persons are especially prone to severe disease and death.

In 1982, a total of 2,173 cases was reported in Texas. As in previous years, cases were generally evenly distributed between males and females. Hispanics accounted for the largest single ethnic group with 945 (43.5%) of the reported cases statewide. The largest number of cases occurred in the 1-4 year-old age group, which accounted for 797 cases (36.7% of the total). The numbers of cases and incidence rates for shigellosis in representative counties with populations of 200,000 or greater are shown in Table 3.

Transmission of the disease is by the direct or indirect fecal-oral route from a patient or carrier; an asymptomatic or mildly symptomatic child is probably most important in person-to-person transmission. Food-, water-, and milk-borne transmission may occur as a result of direct fecal contamination. Disease outbreaks are common under conditions of crowding and poor sanitation. In 1982, several outbreaks were reported among households, and an outbreak which involved at least 83 patients was reported in a state institution.

Laboratory data are available for 50.6% of the reported cases. For 1982, the Bureau of Laboratories reported the following isolations of Shigella species: S. sonnei -619 isolates (56.3%), S. flexneri - 445 isolates (40.5%), S. boydii - 32 isolates (2.9%), and S. dysenteriae - 4 isolates (0.4%).

HANSEN'S DISEASE

Hansen's disease (leprosy) is a chronic infection caused by a slow growing acid-fast bacillus, Mycobacterium leprae, which affects primarily nerves, skin, and the

Table 5

Hansen's Disease Reported In Texas
1920-1982

5-Year Period	Cases Reported by Year of Onset			Texas Population in Millions	Incidence Rate (Cases/Million/Year)		
	Indigenous	Imported	Total		Indigenous	Imported	Total
1920-24	29	1	30	4.67	1.24	0.04	1.28
1925-29	30	3	33	5.24	1.15	0.11	1.26
1930-34	63	6	69	5.82	2.16	0.21	2.37
1935-39	60	9	69	6.11	1.96	0.29	2.26
1940-44	62	3	65	6.41	1.93	0.09	2.03
1945-49	73	14	87	7.06	2.07	Q.40	2.46
1950-54	100	3	103	7.71	2.59	0.08	2.67
1955-59	77	11	88	8.64	1.78	0.25	2.04
1960-64	82	25	107	9.57	1.71	0.52	2.24
1965-69	102	34	136	10.38	1.97	0.66	2.62
1970-74	98	34	132	11.19	1.75	0.61	2.36
1975-79	82	55	137	12.00	1.37	0.92	2.29
1980-82*	35	30	65	14.57	0.80	0.69	1.49
TOTAL	893	228	1121				

*Note—The low rates for 1980-82 reflect the delays, often several years, between the onsets of illnesses and times of reports.

mucosa of the upper respiratory tract. Worldwide it is estimated that 15 million people have Hansen's disease, making it an infection of major health importance.

The recognition of Hansen's disease dates back to biblical times, and Armauer Hansen's identification of the bacillus in 1873 makes it one of the earliest recognized bacterial agents of infection. Nevertheless, despite a long history of recognition and study, Hansen's disease remains the least understood of all the major infectious diseases of man. A major impediment to the study of Hansen's disease has been the continued failure to culture the organism in vitro. It is the slowest growing of all known pathogenic bacteria, dividing only once in 12-14 days. Recent studies on the epidemiology of Hansen's disease suggest that there is a need to distinguish disease from infection. Sero-surveys of contacts of cases indicate that asymptomatic infections with M. leprae occur much more frequently than is commonly believed, whereas the development of disease remains a rare event for which only 5% of a given population appear susceptible.

Most cases of Hansen's disease in the United States are imported from areas of the world in which Hansen's disease is endemic. However, within the continental United States, indigenous transmission of Hansen's disease does occur in two states, Texas and Louisiana.

Texas leads the nation in indigenous Hansen's disease cases. Since 1920, 1121 cases of Hansen's disease have been reported in Texas, 893 (79.7%) of which were indigenous (Table 5). The overall incidence of disease during that time has remained fairly stable at approximately two cases/year/million persons. However, since 1960 the incidence rates for indigenous cases have been dropping while those for imported cases have been rising (Figure 7). The male to female case ratio was 1.3 to 1. Of those 974 infections for which the type of disease was specified, 647 (67%) were lepromatous, 187 (19%) were tuberculoid, and the remaining 140 (15%) were borderline or indeterminant. Hispanics accounted for the majority (65.5%) of cases, followed by whites (24.8%). Since 1970, persons of Asiatic origin have accounted for an increasing percentage of cases (Table 6). This is also reflected in the rising incidence rates for imported cases.

Recent studies of leprosy in wild, Texas armadillos captured in areas known to have indigenous human cases have documented that the agent causing disease in humans and armadillos is the same (Figure 8). The role, if any, that armadillos play in producing human disease remains to be determined. However, armadillos with Hansen's disease have the lepromatous type of infection (which in humans is considered the most infectious form) and, when studied, have been found secreting large numbers of organisms from their nasal mucosas.

These studies have also determined that there is no reliable way to determine by physical examination if a given armadillo is infected.

In 1982, 30 cases of Hansen's disease were reported to the Texas Department of Health. For the second time since 1920, imported cases (19) exceeded indigenous cases (11), reflecting an influx of imported cases from Mexico (8) and Asia (9) (Table 7). In 1980, imported cases also exceeded indigenous cases.

Figure 7

Incidence Of Hansen's Disease In Texas Cases Per Million

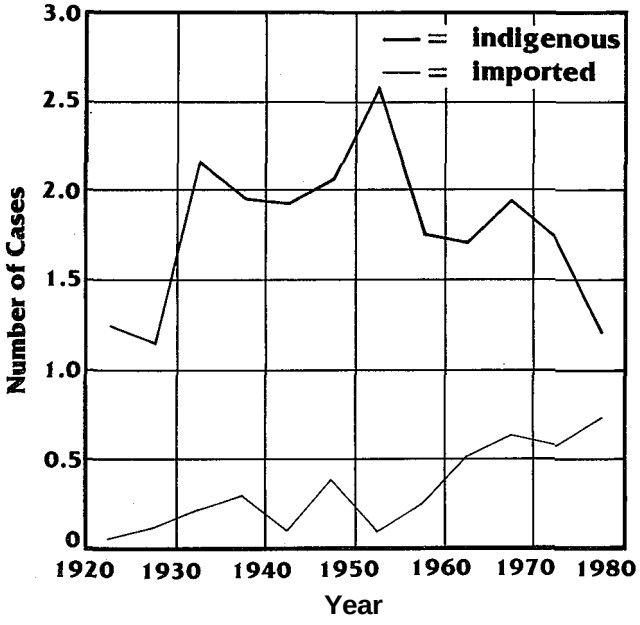


Figure 8

Indigenous Cases Of Hansen's Disease Reported In Texas, 1978-1982 By County Where Infection Acquired

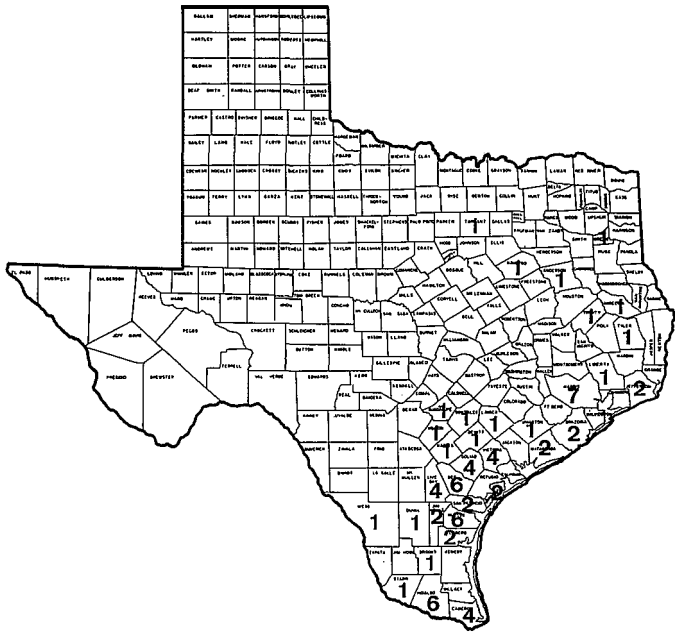


Table 7

Reported Cases of Hansen's Disease in Texas By Race/Ethnicity and Source of Infection, 1982

Race/Ethnicity	Indigenous	Imported	Total
White	4(50.0%)	4(50.0%)	8(27.6%)
Hispanic	7(58.3%)	5(41.7%)	12(40.0%)
Asian/Pacific Islander	—	9(100%)	9(30.0%)
Unknown		1	1 (3.3%)
TOTAL	11(36.7%)	19(63.3%)	30(100.0%)

Table 6

Hansen's Disease Cases In Texas, 1920-82, By Decade Of Report And Race

10-Year Pedod	White	Hispanic	Black	Asian or Pacific Islander	American Indian	Total
1921-30	33(56.9%)	13(22.4%)	11(19%)	—	1(1.7%)	58
1931-40	42(30%)	91(66%)	6(4%)	—	—	139
1941-50	23(19.3%)	86(72.3%)	8(6.7%)	2(1.7%)	—	119
1951-60	36(20.9%)	126(73.3%)	8(4.7%)	2(1.2%)	—	172
1961-70	75(23.5%)	228(71.5%)	13(4.1%)	3(0.9%)	—	319
1971-80	57(22.1%)	161(62.4%)	9(3.5%)	31(12%)	—	258
1981-82	13(22.4%)	31(53.4%)	—	14(24.1%)	—	58*
	279(24.8%)	736(65.5%)	55(4.9%)	52(4.6%)	1(0.1%)	1123

*One 1982 case for whom race was not specified is not included in the number.

HEMOPHILUS INFLUENZAE MENINGITIS

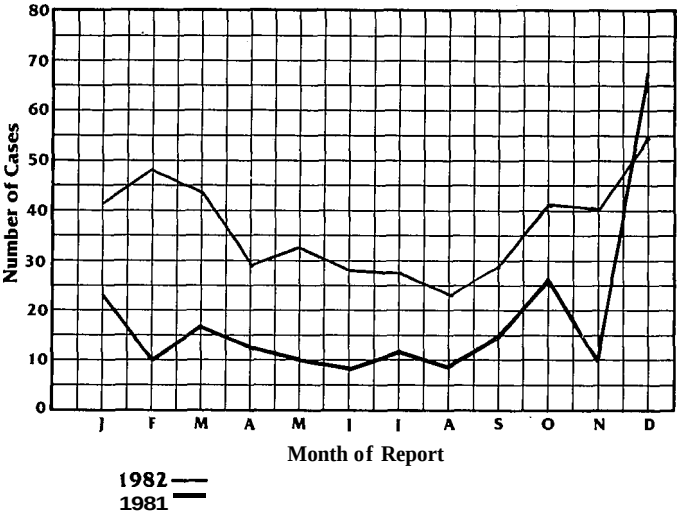
Hemophilus influenzae type b is the most common cause of meningitis in children under three years of age, both in Texas and in the United States. The disease is characterized by fever, vomiting, irritability, lethargy, bulging fontanelles in infants, and nuchal rigidity and severe headaches in older children and adults. Five to 10% of all cases are fatal. Prompt diagnosis and initiation of appropriate antibiotic therapy are critical since most deaths occur within the first few hours of hospitalization.

Early in 1982, the Texas Department of Health began an initiative to encourage physicians and other health professionals to report cases of meningitis due to H. influenzae. Since the diagnosis of this disease is based on laboratory testing, hospital laboratory directors were also contacted and encouraged to report. This initiative was successful and resulted in a significant increase in the number of cases reported statewide. In 1982, 439 case reports of H. influenzae meningitis were voluntarily submitted to the Texas Department of Health from 82 counties across the state, reflecting a 99% increase in the number of cases reported from 56 counties in 1981. Figure 9 illustrates the number of cases reported by month during 1982 compared to those reported in 1981. (The peak in December 1981 is due to delayed reporting which resulted from this initiative.) Although the overall number of cases was much greater in 1982, the shape of the graph did not change significantly since the peaks occurred in the fall and winter months.

Because the reporting of cases of meningitis caused by H. influenzae is not required by law in Texas, the data presented here are only representative of certain areas and not of the state as a whole. As in 1981, the majority of cases occurred in the larger metropolitan areas with 51% of the cases reported from Dallas, Tarrant, Travis, Bexar, and Harris counties. (The geographic distribution of cases in Texas is provided in Figure 10.)

Figure 9

Reported Cases of Hemophilus influenzae Meningitis In Texas By Month Of Report, 1981 & 1982 Compared



The age distribution of cases in Texas was typical of national reports: 95% of cases occurred in children under four years of age and 85% in children under two. The effects of increased reporting are also evident as the age-specific incidence rates for 1982 are compared to the rates for 1981 (provided in Table 8). Interesting to note are the percentage increases both in cases and incidence rates in black infants and children. Although the number of deaths due to H. influenzae increased 57%, from 21 in 1981 to 33 in 1982, the overall case-fatality ratio decreased, from 9.5% in 1981 to 7.5% in 1982. The 33 patients who died as a result of H. influenzae meningitis included 11 infants under one year of

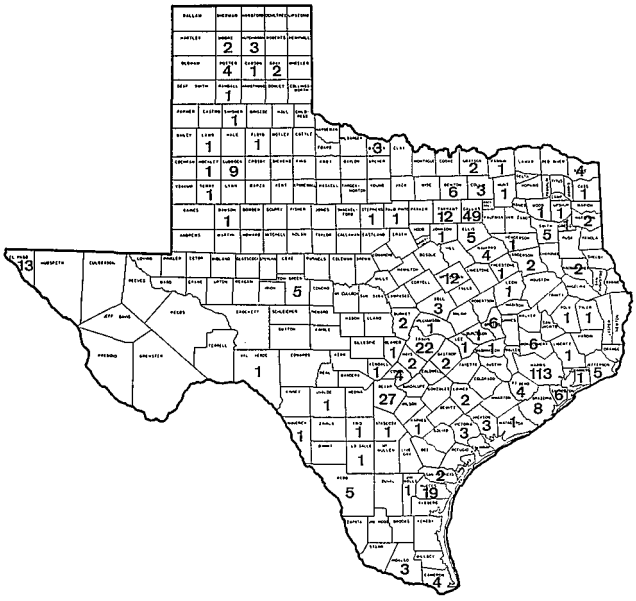
Table 8

Reported Cases, Incidence Rates, Deaths, And Case-Fatality Ratios Of Hemophilus Influenzae Meningitis In Children By Race/Ethnicity, Texas, 1982 and 1981 Compared

	1982								1981							
	Under 1 Year				1-4 Years				Under 1 Year				1-4 Years			
Race/ Ethnicity	# Cases	Rate	# Deaths	CFR	# Cases	Rate	# Deaths	CFR	# Cases	Rate	# Deaths	CFR	# Cases	Rate	# Deaths	CFR
White	115	86.7	6	5.2%	89	16.2	12	13.9%	44	31.4	4	9.1%	56	8.9	5	8.9%
Hispanic	75	96.9	3	4.0	38	11.8	5	13.2	42	56.8	7	16.7	22	6.6	1	4.5
Black	47	151.3	2	4.3	38	28.7	4	10.5	17	48.4	3	17.6	13	8.4	0	—
Unknown	7	—	0	—	6	—	0	—	5	—	0	—	1	—	0	—
Total	244	101.2	11	4.5%	171	17.0	21	12.3%	108	43.3	14	13.0%	92	8.3	6	6.5%

Figure 10

Reported Cases Of Hemophilus influenzae Meningitis In Texas By County Of Residence, 1982



age; 10 one-year-olds; 6 two-year-olds; 3 three-year-olds; 2 four-year-olds; and one 19-year-old.

Texas cases in 1982 were fairly evenly distributed between the sexes with 52.8% male and 46.7% female; the sex of two individuals was not reported. The racelethnicity of the 439 cases included 224 whites (51.0%), 116 Hispanics (26.4%), 90 blacks (20.5%), 1 Asian (0.2%), and 8 (1.8%) for whom racelethnicity was not indicated.

The risk of secondary infections in day-care centers is a matter of concern to health professionals. A review of the data indicated that in 1982, 62 infants and children reported as having H. influenzae meningitis were enrolled in day-care centers at the time of onset. However, no major outbreaks were reported in day-care centers in Texas last year.

Antibiotic sensitivity studies revealed that 46 (21%) of the 216 organisms tested were resistant to ampicillin. Only four (2%) of the 183 isolates tested were resistant to chloramphenicol.

Epidemiologic data available on cases were much more complete in 1982 than in previous years as investigation forms were submitted to the Texas Department of Health on 319 (72.7%) cases. This was a record number when one considers that reporting of the disease is strictly voluntary. As the reporting of H. influenzae meningitis continues to improve, a more accurate assessment of trends in Texas can be made.

INFLUENZA AND FLU-LIKE ILLNESS

The influenza viruses produce a broad spectrum of disease ranging from mild upper respiratory infection to rapidly progressive pneumonia and death. The term "flu-like illness," however, refers to the classic symptoms of coryza followed within less than a day by fever >101 °F, malaise, headache, and myalgia. Cough may or may not be a prominent symptom, but it does not usually appear before the second or third day of illness.

Nineteen eighty-two (1982) was a mild year for influenza; only 93,736 cases of flu-like illness were reported to the Texas Department of Health. This compares with a total of 143,955 cases in 1981. Not only was the total number of cases in 1982 reduced, but the peak activity occurred rather late in the influenza season. The largest number of cases in a single week (5,939) was reported during the week of February 21-27, 1982. The number of deaths attributed to influenza in 1982 (29) was also smaller than the number recorded in 1981 (133).

The influenza viruses circulating in 1982 were not very new antigenically, and this probably accounts for the reduced morbidity and mortality observed. The predominant strain of influenza virus in 1982 was closely related to Influenza B/Singapore, a virus that had circulated widely in 1979. An Influenza A (H1N1) strain related to A/England accounted for a significant number of cases as well.

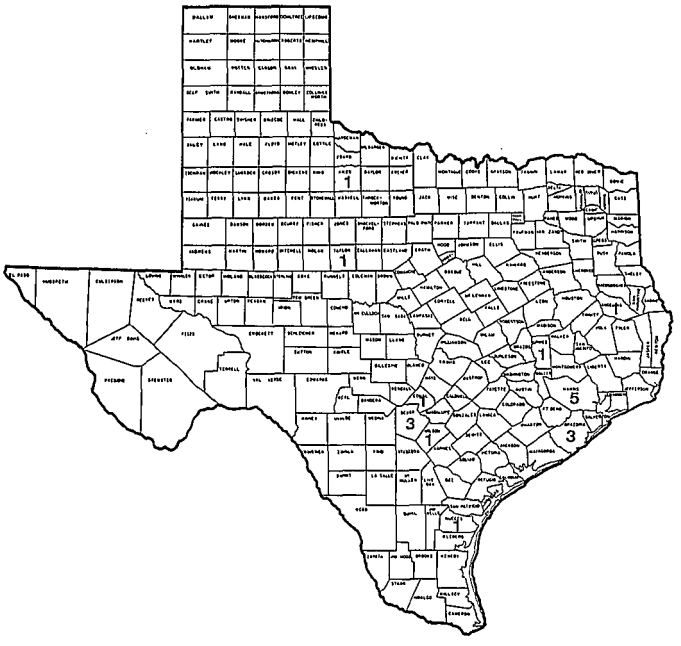
LEPTOSPIROSIS

Leptospirosis is a zoonotic disease caused by leptospira, of which 18 serogroups and 170 serotypes have been identified worldwide. Reservoir hosts include domestic and wild mammals, reptiles, and amphibians. Human cases usually follow contact with infected animals or with fomites or water contaminated with the urine of infected animals.

Eighteen cases of leptospirosis were reported in Texas during 1982. This is the greatest number of cases reported during a single year since surveillance of the disease began in Texas in 1951. The 100% increase over the nine cases reported in 1981 was not related to associated-case clusters. Instead, it most likely was due to better recognition and reporting of a disease endemic in the state. Cases were residents of ten counties, with Harris County reporting 5 cases, Bexar and Brazoria counties reporting 3 cases each, and 7 other counties reporting a single case each (Figure 11). Cases ranged in age from 4 to 62 years, with a median age of 32 years; 60% were in the economically active 20-60 year age group. Eleven cases were male and seven female, with 12 reported as white, 4 as Hispanic, and 2 as black.

Figure 11

Reported Cases Of keptospirosis In Texas By County of Residence, 1982



Potential sources of infection were reported in 17 cases and followed traditional exposure patterns. Fifteen cases (including one veterinarian) reported contact with domestic animals (cats and dogs principally, though 4 cases reported additional domestic animal contact on farms, and 2 cases also reportedly had close contact with wild mammals), 3 cases (including 2 with domestic animal contact) reported swimming in stagnant water (stock ponds), and 1 case was a rice farmer who denied animal contact, but who could have been exposed through contaminated water in the fields. The one case with no reported exposure information was the wife of a rancher and could have had multiple sources of potential exposure to leptospira.

No fatalities were reported, though at least two cases were complicated by meningitis, which, in one case, left the patient (a four-year-old Hispanic male) comatose for six weeks before making what his physician termed a "remarkable" recovery. Sixteen cases were hospitalized. The average length of hospital stay for the 12 patients on whom information was available was ten days.

Because leptospirosis was suspected at the time of exposure, the veterinarian's case will be briefly described. Three days prior to onset of symptoms, the veterinarian examined a dog in moribund condition, suspected of having leptospirosis. During the examination, the dog urinated on the exam table. The veterinarian, with a severely cut hand, cleaned up the urine. The dog died later that day. Three days later, the veterinarian experienced onset of nausea, headache, and severe chills. Over the next two days, the headache worsened, fever (100-104°F) developed, and fatigue and a dull aching pain under the ribs were noted. On the third day following onset, and six days after exposure, the patient was hospitalized; he recovered and was discharged after seven days.

MALARIA

Malaria, a parasitic disease usually transmitted through the bite of an infective, female anopheline mosquito, no longer occurs endemically in most temperate zone areas; however, the disease is still a major cause of illness in many parts of the tropics and subtropics. Malaria may also be transmitted by the transfusion of blood from infected persons; congenital transmission occurs rarely. An understanding of the various developmental cycles of and fundamental differences between the four species responsible for the disease — Plasmodium falciparum, P. vivax, P. malariae, and P. ovale — is essential for optimal diagnosis and treatment.

Table 9

Distribution Of Malaria Cases Reported in Texas By Geographic Origin Of The Parasite, 1982

Geographic Origin	P. vivax	P. falciparum	P. malariae	P. ovale	Mixed Infection	Not Specified	Total
Asia	10 (4)	—	1		—	4 (1)	15 (5)
Africa	3 (2)	3 (3)	1 (1)	1 (1)	2 (2)	2 (1)	12 (10)
Central America*	3 (1)	2 (1)	1 (1)	—	—	1	7 (3)
Haiti	—	2 (2)	—	—	—	—	2 (2)
Indonesia	2 (2)	—	—	—	—	1 (1)	3 (3)
Mexico	5 (3)	1 (1)	—	—	—	—	6 (4)
South America	2	—	—	—	—	—	2
Southeast Asia	8 (1)	—	—	—	—		8 (1)
Total	33 (13)	8 (7)	3 (2)	1 (1)	2 (2)	8 (3)	55 (28)

*Excluding Mexico

Note: Numbers in parentheses are non-immigrant cases.

In 1982, there was a total of 55 cases of malaria reported in Texas, a decrease of 36.8% from the 87 cases reported in 1981. All of the 1982 cases were acquired outside the United States: 27 cases were recent immigrants or students from countries where malaria is endemic, and 28 cases (non-immigrants) acquired malaria while on business or vacation travel. No cases of introduced malaria have been reported in Texas since 1970. This potential exists, however, since appropriate mosquito vectors are common in many areas of the state.

Similar to 1981, cases were normally distributed around a peak age range of 20-29 years old (24 cases). Thirty-eight cases were male and 17 were female. The majority of cases was due to P. vivax (33), followed by P. falciparum (8), P. malariae (3), P. ovale (1), and 2 cases were mixed infections. The species was not determined for eight cases. The geographic origin of imported cases is presented in Table 9.

Overall, 13 of the 28 non-immigrants who acquired malaria while traveling were not taking appropriate chemoprophylaxis.

MENINGOCOCCAL INFECTIONS

A total of 238 systemic infections with Neisseria meningitidis was reported in 1982. Meningitis and septicemia were most often reported. The specific site from which the organism was recovered was available for 173 cases (73%): 85 were cultured from cerebrospinal fluid (CSF) alone, 58 from blood alone, 28 from CSF and blood, and 2 from joint fluid alone.

The serotype was available for 138 (58%) of the cases: 4 (2.9%) were serotype A, 75 (54.3%) were serotype B, 37 (26.8%) were serotype C, 13 (9.4%) were serotype W135, 7 (5.1%) were serotype Y, 1 (0.7%) was serotype Z, and 1 (0.7%) did not react with any of the sera. Serotype B has accounted for the majority of cases in the last four years. Although the proportion of organisms that were serotype C decreased from the 39% reported in 1981, it was still higher than the 7.7% and 5% reported in 1980 and 1979, respectively. The increase of serotype C in 1981 was associated with a significant increase in the number of meningococcal infections particularly in Harris County. In 1982, the serotype was available for 31 (54%) of the Harris County cases; 45% of these were serotype C and 42% were serotype B. In Dallas and Bexar counties, serotype B accounted for 70% of cases, and serotype C accounted for less than 10%.

Antibiotic sensitivity data were reported for 75 (32%) of the organisms. All of the 73 organisms tested against ampicillin/penicillin were sensitive as were all of the 49 organisms tested against chloramphenicol. Only 13 organisms were tested against sulfa compounds; two (15.4%) were resistant. One (11.1%) of the nine organisms tested against rifampin was resistant. Although the actual number of resistant organisms is small, these organisms represent more than 10% of the organisms tested against these agents. If this level of resistance to rifampin is truly representative of the total population, it will be an important consideration in terms of the use of this drug as a prophylactic agent for meningococcal and Hemophilus influenzae disease.

Twenty-nine (12.2%) of the cases were fatal (Table 10). The case-fatality ratio was less than 10% only for children between the ages of 1 and 14 years. Although there was no difference in the sex distribution of cases in terms of morbidity (51% female and 49% male), more of the fatal cases were male (59%) than female (41%).

Table 10

Reported Cases and Case-Fatality Ratios Of Meningococcal Infections By Age Groups In Texas, 1982

Age Group	Number of Cases	Number of Deaths	Case-Fatality Ratio
<1	44	5	11.4%
1-4	79	6	7.6
5-14	29	2	6.9
15-44	49	8	16.3
45-64	15	5	30.0
65+	10	3	33.3
Unknown	12	0	—
TOTAL	238	29	12.2%

In contrast to 1981 when there were 15 cases in seven families, only one family with more than one case was reported in 1982. In this family, the two-month-old daughter had onset of illness on February 28, and the 16-month-old son had onset of illness three days later on March 3; both children survived. Neither child attended a day-care center. There was no information available as to the serotypes of the organisms, antibiotic sensitivities, or whether prophylaxis had been administered prior to the onset of the second case.

PLAGUE

Plague is an infection caused by the Gram negative coccobacillus, Yersinia pestis (formerly Pasteurella pestis). Although the organism is taxonomically classified within the Enterobacteriaceae, Y. pestis produces a fulminant clinical picture characterized by bubonic, septicemic, and pneumonic forms of infection. Historically, plague epidemics have decimated human

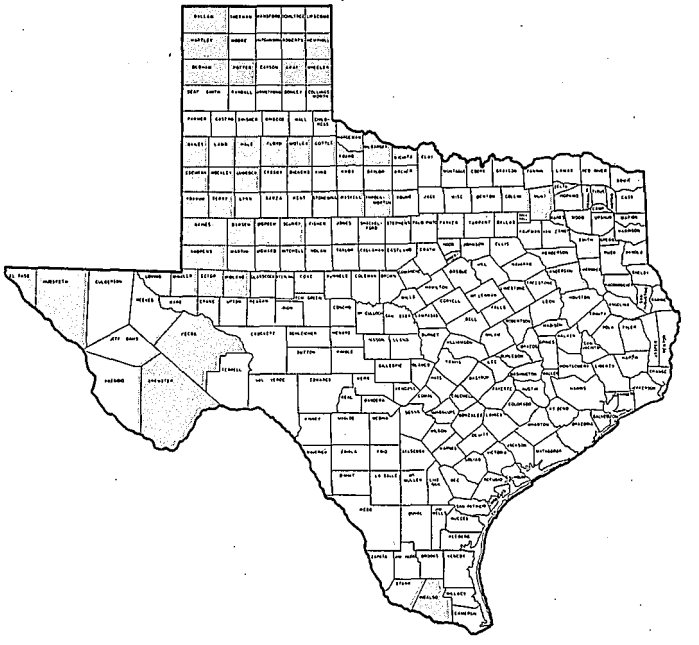
populations and changed the course of human events. These epidemics were characterized by rat-to-human transmission via the rat flea (Xenopsylla cheopis), or human-to-human transmission via aerosolized droplets from a patient with plague pneumonia. Human plague as it occurs presently in the United States does not follow these classic patterns of transmission, but rather involves human intrusion into areas of active plague transmission among wildlife, usually rodents or carnivores (including pets) who have been in contact with infected rodents. During 1970-1981, 136 cases of human plague were reported in the United States; all were from western states. The majority (56.6%) of the cases was reported from New Mexico, the state which now leads the nation in the number of human plague cases.

In 1982, a 23-year-old West Texas male died from laboratory confirmed plague. The source of his infection remains unknown, but his hunting and work-related activities placed him in direct contact with wildlife in areas previously documented to have wildlife plague activity. This case represents the first case of indigenous human plague confirmed in Texas since 1920, when 32 cases with 18 deaths were reported in the Galveston and Beaumont areas. The 1920 cases were also the first cases of plague reported in Texas. In 1981, the Texas Department of Health was also involved with a fatal plague case in a 25-year-old, male rancher who died in a West Texas hospital. The source of his infection was a bobcat captured during trapping activities. Although this patient was officially a resident of New Mexico, he lived within five miles of Texas, and his family's land extended across the state line.

Sylvatic (wildlife) plague is known to occur in areas throughout West Texas, ranging from the Panhandle down to the Mexican border. Since 1970, 31 Texas counties have reported sylvatic plague (Figure 12). Epizootic plague (epidemics of plague in wildlife) is unpredictable and could occur in any area of West Texas. These epizootic situations represent the greatest risk of plague for humans. Residents of West Texas, especially those involved in hunting, trapping, or other outdoor activities, should be aware that they may be exposed to plague through contact with animals. They should be cautioned to avoid any sick animals or their fleas. Noticeable rodent die-offs should be reported to local health authorities in order that the possibility of plague can be investigated. Persons who develop a fever after having had contact with wild animals or their fleas, especially when accompanied by lymph node enlargement, should seek prompt medical attention. Physicians seeing such patients should consider the possibility of plague in the differential diagnosis. Plague can be treated effectively early in the course of infection by several antibiotics, including tetracycline and streptomycin. The two human cases involving the Texas

Figure 12

Counties In Texas Reporting Sylvatic Plague 1970-1982



Department of Health during 1981 and 1982 fit the typical pattern of human plague in the United States. Both were young males in contact with wild animals from areas where sylvatic plague was known to occur. Nevertheless, plague was not suspected as a cause of illness until either shortly before or after death.

Any suspected human case of plague should be reported immediately to local health authorities or the Texas Department of Health so that appropriate control measures can be instituted.

PSITTACOSIS

Psittacosis (ornithosis) is primarily a disease of birds but is readily transmissible to man. The causative agent, Chlamydia psittaci, was once thought to be transmitted to man only by psittacine birds (parrots, parakeets, cockatiels, etc.). It is now known that the disease affects many other species of birds including turkeys, chickens, ducks, pigeons, sea gulls, egrets, and canaries. Persons at particular risk of psittacosis are workers at poultry farms or poultry processing plants, aviaries, or pet shops.

Affected birds demonstrate varying degrees of illness ranging from the asymptomatic carriers to a fulminant, rapidly fatal disease. The secretions and droppings of infected birds are teeming with chlamydiae and remain highly infectious even after drying.

The route of entry into humans is nearly always through inhalation of aerosolized fresh excreta or of dust from dessicated bird droppings. Person-to-person transmis-

sion is rare but has occurred and may be a matter of concern for hospital personnel caring for patients with psittacosis.

The disease in man is characterized by an incubation period of 7-14 days followed by symptoms of sore throat, fever, myalgia, chills, malaise, weakness, nonproductive cough, photophobia, and headache. The fever may rise to as high as 105°F during the first week of illness and is often accompanied by a relative bradycardia. The headache is generally diffuse, is frequently severe, and may dominate the clinical picture. In severe cases, nausea, vomiting, mental confusion, delirium, or stupor may occur.

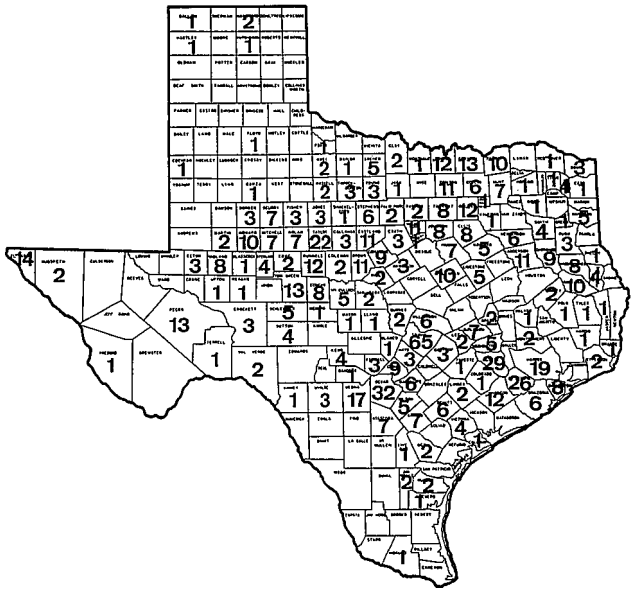
There were eight cases of psittacosis reported to the Texas Department of Health during 1982, with ages ranging from seven to 66 years. Cases were widely distributed in the state with no apparent geographic clustering. Cities reporting one case each were Round Rock, Point, Killeen, Yoakum, Euless, Austin, San Antonio, and Shiner. Three cases were parakeet breeders, two had pet cockatiels, and one raised racing pigeons. All eight recovered.

RABIES IN ANIMALS

Examination for rabies was conducted on 10,999 specimens from 54 species of animals submitted to the Texas Department of Health Laboratories during 1982 (Table 11). This resulted in 796 laboratory confirmed cases of animal rabies being reported, an increase of 98 cases (14%) over the 698 cases reported in 1981. There were 148 counties reporting one or more animal rabies cases during 1982; this distribution is provided in Figure 13.

Figure 13

Confirmed Cases Of Animal Rabies In Texas By County Of Occurrence, 1982



Domestic animals accounted for 14.2% of all rabies cases in Texas in 1982, up from 9.9% in 1981. Dogs and cats were the species most often submitted for testing, but these animals had low infection rates; 21 of the 3,037 dogs and 42 of the 3,469 cats submitted during 1982 were positive for rabies. The incidence of rabies in horses rose from eight cases in 1981 to 26 cases in 1982, a 225% increase.

The 91% increase in cat rabies illustrates the importance and the continuing danger of cats as potential vectors of human rabies. Even though state law requires

Table 11

Number Of Specimens Examined For Rabies In Texas By Laboratory Site And Species Of Animal, 1982

Laboratory Site	Skunk	Fox	Bat	Raccoon	Dog	Cat	Cow	Horse	Other*	TOTAL
Austin	1028	53	352	316	1782	2229	180	115	979	7034
San Antonio	58	3	108	16	177	222	2	4	77	667
El Paso	23	2	76	1	138	79	1	0	13	333
Houston	260	5	286	102	940	939	13	7	413	2965
TOTAL	1369	63	822	435	3037	3469	196	126	1482*	10999

*Other

Armadillo — 3	Coat — 16	Mole — 7	Pig — 2	Shrew — 1
Bobcat — 11	Human Brain — 1	Mustelids — 75	Rabbit — 77	Wolf — 4
Coatimundi — 2	Javelina — 6	Non-human Primate — 3	Ringtail Cat — 9	Zebra — 1
Coyote — 47	Large Cat — 7	Opossum — 300	Rodents — 881	Unidentified — 2
Deer — 12	Llama — 2	Owl — 1	Sheep — 12	

annual rabies vaccination of dogs and cats, a much lower percentage of cats than dogs are actually vaccinated. This situation is unfortunate since cats are predatory animals and are more likely to come into contact with rabid wild animals. The increase in rabies in domestic animals results in an increased threat to the human population because of the animals' close proximity to people.

Wild animals accounted for 85.8% of the total number of rabies cases reported statewide in 1982, and skunks continued to be the species most often positive for rabies. Of the 1,369 skunks submitted for testing, 536 were positive and accounted for 67.3% of the total animal rabies cases. Table 12 provides the numbers and percentages of confirmed rabies cases by species.

Figure 14 illustrates the number of animal rabies cases by month both for 1981 and 1982. The highest activity for both years was reported from March through June. In 1982, unlike 1981, there was another peak in the number of positives from August through November.

Figure 14

Reported Cases Of Animal Rabies In Texas By Month Of Report, 1982-81

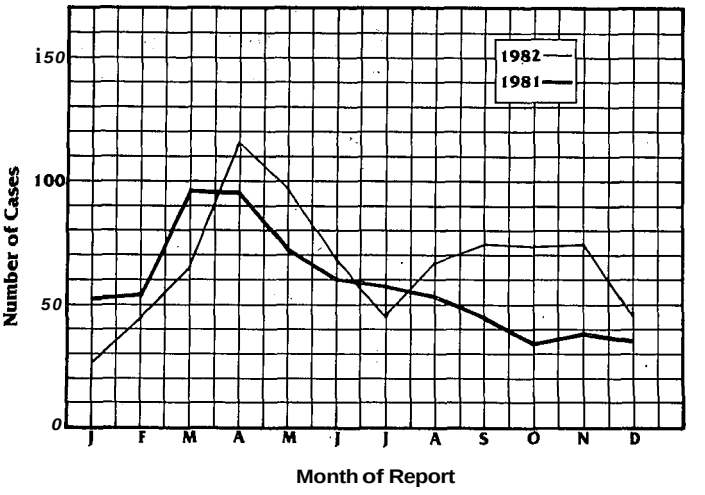


Table 12

Laboratory Confirmed Rabies Cases In Texas Domestic and Wild Animals 1982 and 1981

	NUMBER OF CASES		% OF TOTAL DOMESTIC		% OF TOTAL RABIES CASES	
DOMESTIC ANIMALS	1982	1981	1982	1981	1982	1981
Dogs	21	12	18.6%	17.4%	2.6%	1.7%
Cats	42	22	37.2	31.9	5.3	3.2
Cows	24	27	21.2	39.1	3.0	3.9
Horses	26	8	23.0	11.6	3.3	1.1
Total Domestic Animals	113	69	100.0%	100.0%	14.2%	9.9%

	NUMBER OF CASES		% OF TOTAL WILD		% OF TOTAL RABIES CASES	
WILD ANIMALS	1982	1981	1982	1981	1982	1981
Skunks	536	515	78.5%	81.9%	67.3%	73.8%
Bats	123	79	18.0	12.6	15.5	11.3
Foxes	13	25	1.9	4.0	1.6	3.6
Other	11	10	1.6	1.6	1.4	1.4
Total Wild Animals	683	629	100.0%	100.1%	85.8%	90.1%
TOTAL ALL ANIMALS	796	698				

Table 13

Comparison Of Reported Characteristics Of Reye Syndrome Cases United States, 1981-82, And Texas, 1982

	United States*	Texas+
Total Number of Case Reports	216	29
Number Meeting the CDC Case Definition	173 (80%)	22 (76%)
Age		
<5	63 (36%)	15 (68%)
5-14	91 (53%)	7 (32%)
15-18	19 (11%)	0
Total Age Reported	173	22
Race		
White (includes Hispanic)	156 (93%)	19 (86%)
Hispanic only	12	7
Black	9 (5%)	2 (9%)
Asian	3 (2%)	0
Other	0	1 (5%)
Total Race Reported	156	22
Sex		
Male	81 (49%)	16 (73%)
Female	86 (51%)	6 (27%)
Total Sex Reported	167	22
Antecedent Illness		
Respiratory Symptoms	83 (63%)	12 (55%)
Chickenpox	40 (30%)	3 (14%)
Diarrhea (w/o respiratory symptoms)	9 (7%)	1 (5%)
Other	—	4 (18%)
None (no antecedent illness)	—	2 (9%)
Total Antecedent Illness Reported	132	22
Outcome		
Died	57 (35%)	10 (45%)
Survived	106	12
No Residual Neurological Damage	97 (92%)	9 (75%)
Mild Residual Neurological Damage	7 (7%)	3 (25%)
Severe Residual Neurological Damage	2 (2%)	0
Total Outcome Reported	163	22

*United States data from the "Reye Syndrome Surveillance Letter," CDC, Decmber 13, 1982. Data collected during the period 1211181 — 10131/82.

+Texas data from the "Reye Syndrome Case Investigation Report" forms on file with the Bureau of Epidemiology.

REYE SYNDROME

Reye syndrome (RS), or acute encephalopathy with fatty degeneration of the viscera, is primarily a pediatric condition. The clinical presentation of RS generally begins with an uncomplicated viral illness (often an influenza-like illness or varicella) from which the child may appear to be recovering when the onset of persistent vomiting occurs. Changes in sensorium are variable, ranging from mild irritability and disorientation to rapid development of coma. Other signs of RS include rising serum transaminase, prothrombin time, and serum ammonia levels; fatty metamorphosis of the liver; and cerebral edema. Dehydration, acidosis, hypotension, bleeding, and renal insufficiency may also develop. Death or severe neurologic damage can occur as a result of the cerebral edema and increased intracranial pressure. Early recognition, hospitalization, and very specialized treatment with intensive supportive care can reduce neurologic sequelae and death in severe cases.

The cause(s) of RS remain unknown and no single test is available to confirm the diagnosis. The current case definition was developed by the Centers for Disease Control (CDC) in 1980:

1) Acute noninflammatory encephalopathy with:
   (a) microvesicular fatty metamorphosis of the liver confirmed by biopsy or autopsy, or
   (b) a serum glutamic oxaloacetic transaminase (SGOT), or a serum glutamic pyruvic transaminase (SGPT), or a serum ammonia (NH_3) greater than three times normal;
2) ≤ 8 leukocytes/mm^3 in cerebrospinal fluid, if CSF is obtained; and
3) No other more reasonable explanation for the neurologic or hepatic abnormalities.

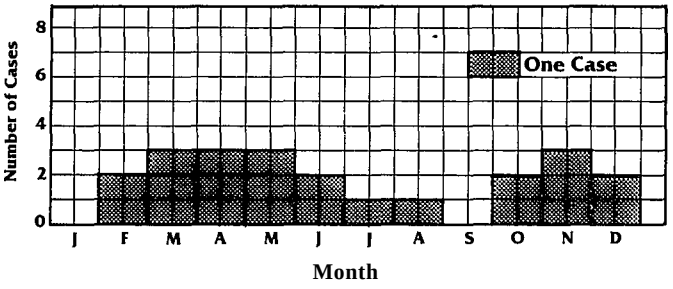
Reye syndrome was not officially a reportable disease in Texas in 1982, but 29 cases were reported through an informal surveillance network of hospital infection control practitioners, physicians, and public health nurses. (Reye syndrome became reportable in April 1983.)

Table 13 presents a comparison of characteristics of RS cases reported in Texas and the nation. The average age of cases reported in Texas is less than that of cases reported to the CDC. Texas cases also have a higher case-fatality ratio than the national average. However, our ratio may be influenced by the selective follow-up of the most severe cases of RS, those identified through death certificate information. Figure 15 shows that Reye syndrome cases occur year-round, although the fewest cases occur in summer months.

Whether or not there is any association between the use of salicylates (aspirin) and RS remains controversial. Pending resolution of this question, the Surgeon General of the United States and others (CDC, NIH, FDA, American Academy of Pediatrics) have advised against the use of salicylate-containing medications to treat children with viral illnesses.

Figure 15

Reported Cases of Reye Syndrome In Texas By Month Of Onset/Hospitalization, 1982



RICKETTSIAL DISEASES

Endemic Typhus

Endemic (murine or flea-borne) typhus is caused by Rickettsia typhi, a small, obligate, intracellular coccobacillus, which is usually transmitted by the feces of an infected rat flea. The rat flea defecates on the human host during the feeding process. The itching associated with the flea bite facilitates the inoculation of infected feces into the bite site through scratching. However, flea bites frequently go unnoticed, and over 75% of reported cases cannot recall any flea bites prior to becoming ill.

In 1982, 41 cases of endemic typhus were reported to the Texas Department of Health. This represents a 16% decrease from the 49 cases reported in Texas in 1981. The counties of residence of the cases are presented in

Figure 16

Reported Cases of Endemic Typhus In Texas By County Of Residence, 1982

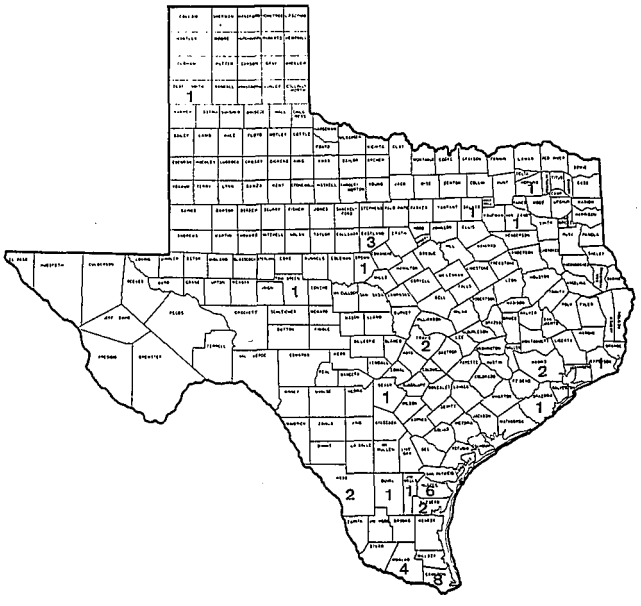


Figure 17

Reported Cases Of Endemic Typhus In Texas By Month Of Onset, 1982

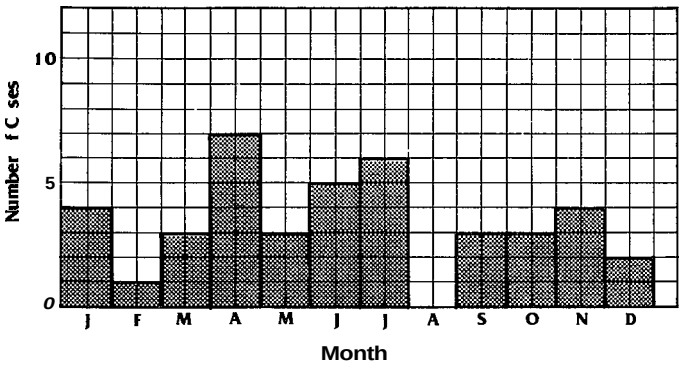


Figure 16. Although sporadic cases occurred throughout the state, the majority (58%) of cases resided in South Texas.

The ages of cases ranged from 3 to 80 years, with a median of 34 years. Twenty-three of the cases were male, and 18 were female. Twenty-three cases were white, 16 were Hispanic, and 2 were black. The majority of cases (56%) had onset of symptoms during the months of April through July (Figure 17). Fever was present in 97% of the cases, headache in 76%, and rash in 24%. There was one death due to the disease in 1982, a 41-year-old, Hidalgo County female who died in May.

Rocky Mountain Spotted Fever

Rocky Mountain spotted fever (RMSF) is a rickettsial infection caused by Rickettsia rickettsii. The organism is primarily a parasite of ticks and is passed through unending generations of ticks by transovarial transmission. Man contracts RMSF either through the bite of an infected tick or by contamination of the skin with crushed tissues or feces of infected ticks. In Texas, the tick species most commonly associated with human infection are the lone star tick (Amblyomma americanum), the dog tick (Dermacentor variabilis), and the brown dog tick (Rhipicephalus sanguineus).

Symptoms of RMSF include headache, fever, and myalgia, followed in two to three days by a maculopapular rash on the wrists and ankles. The rash then progresses to involve the rest of the body often becoming petechial or purpuric. Early antibiotic treatment may prevent the appearance of the rash. Sixteen (25%) of the cases reported in 1982 did not develop a rash.

During 1982, 64 cases of RMSF were reported in Texas, a 42% increase over the 45 cases reported in 1981 and the largest number ever reported in this state. The counties of residence of all reported cases are shown in Figure 18. Seventy percent (45) of those cases resided in Public Health Regions (PHR) 5, 6, 7, and 10 which include the central, northeastern, and eastern counties of the state. Incidence rates per 100,000 population seen in PHR 7 (1.6 cases) and PHR 10 (0.74 cases) compare to an incidence rate of 0.43 cases for the state as a whole.

The majority (or 78%) of the cases had onset of symptoms between April and August 1982. Five cases had onset of symptoms in either January or February. None had onset of symptoms in November or December. There were two deaths due to the disease in 1982; a 35-year-old, Dallas County female died in August, and a 78-year-old, Johnson County male died in September.

Table 14 presents the distribution of cases by sex and age group. Thirty-seven cases were male, and 27 were female. The ages ranged from 1 to 78 years; the median age was 14.5 years.

Thirty-seven cases reported a history of tick attachment. Another five cases reported removing ticks with their hands from pets.

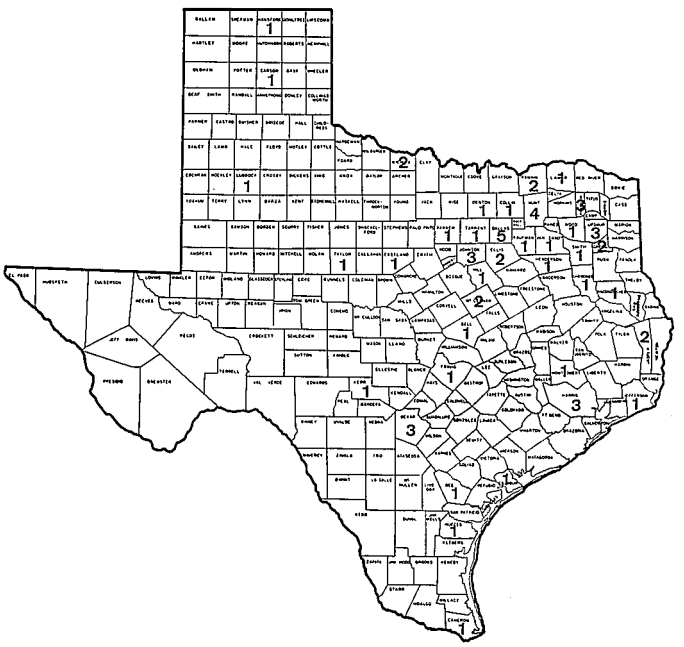
Table 14

Reported Cases Of Rocky Mountain Spotted Fever In Texas By Sex And Age Group, 1982

SEX	<5	5-9	10-19	20-29	30-39	40-59	60+	TOTAL
Male	3	10	6	7	5	4	2	37
Female	6	5	5	2	5	1	3	27
Total	9	15	11	9	10	5	5	64

Figure 18

Reported Cases Of Rocky Mountain Spotted Fever In Texas By County Of Residence, 1982



STREPTOCOCCAL DISEASES

Group A (beta hemolytic) streptococci cause a variety of diseases. The two most common are streptococcal pharyngitis (strep throat) and streptococcal skin infection (impetigo or pyoderma). Less common streptococcal diseases include scarlet fever, otitis media, mastoiditis, pneumonia, septicemia, and meningitis. Rare, but serious, complications of impetigo and/or streptococcal pharyngitis include acute (poststreptococcal) glomerulonephritis (AGN) and acute rheumatic fever (ARF).

Strep Throat and Scarlet Fever:

Strep throat is among the most common bacterial infections of childhood. In older children and adults, the illness is characterized by an incubation period of two to four days followed by the rather abrupt onset of sore throat, fever, headache, malaise, nausea, and vomiting. Physical findings include inflammation of the posterior pharynx, grayish-white exudates of the pharynx or tonsils, and enlarged and tender anterior cervical lymph nodes. The disease is ordinarily spread through contact with saliva or nasal secretions of an infected person, but explosive food-borne outbreaks are well documented following ingestion of contaminated milk or egg products. Strep throat is generally a self-limiting illness characterized by complete recovery in seven to ten days, but on occasion, it may be followed in one to five weeks by ARF or AGN.

There were 47,473 cases of streptococcal sore throat and/or scarlet fever reported to the Texas Department of Health in 1982. Previous peak years occurred in 1959 (46,030 cases) and in 1972 (50,274 cases). The distribution of cases by month in 1982 showed the customary seasonal variation with a maximum of 6,075 cases reported in March and a minimum of 1,947 cases reported in August.

Scarlet fever (scarlatina) is a clinical syndrome which results from infection with a strain of group A streptococcus which elaborates any one of at least three immunologically distinct erythrogenic toxins. Scarlet fever is characterized by an abrupt onset of fever, sore throat, malaise, headache, nausea, and vomiting. The rash develops within one to two days and consists of a diffuse flush or erythema with superimposed elevated red punctate lesions. Other characteristic signs include circumoral pallor, Pastia's lines in skin folds, and a "strawberry" tongue. The fever usually resolves in three to five days, but it may be weeks before the patient feels completely well. During convalescence, varying degrees of desquamation are often seen. On the trunk and limbs, small flakes of skin are shed ("branny" desquamation), whereas on the hands and feet, thick sheets or casts of epidermis may be lost leaving pink intact skin underneath. Scarlet fever may be followed by the same sequelae as strep throat (i.e., ARF or AGN).

Scarlet fever cases have been tallied separately from strep throat since mid-1982. There were 354 cases of scarlet fever reported in the second half of 1982 with a seasonal trend similar to that of strep throat.

Rheumatic Fever:

Acute rheumatic fever (ARF) is generally a disease of late childhood or adolescence and is characterized by inflammatory processes involving the joints, heart, subcutaneous tissues, and central nervous system. Initial clinical manifestations usually include fever and painful swelling of one or more joints such as the knees, elbows. ankles, or wrists. The pain seems to move from joint to joint. Approximately 40-50% of children with ARF will show signs of carditis with heart murmur(s) not previously present, cardiac enlargement, congestive heart failure, or pericardial friction rubs. Non-tender subcutaneous nodules near elbows, knees, wrists, or ankles may occur several weeks after onset. A non-pruritic, nonpainful erythematous rash (erythema marginatum) is occasionally seen on the trunk or proximal extremities. In a minority of cases, the patient experiences involuntary spasmodic incoordinated movements of the face, head, or extremities (Sydenham's chorea). Repeated attacks of ARF can lead to progressively worse cardiac damage, producing rheumatic heart disease.

The incidence of ARF following strep throat infections continues to decline in the United States. There were only 12 cases of rheumatic fever reported to the Texas Department of Health in 1982, down from 18 in 1981. The cases were clustered primarily during the winter and spring months. The cases ranged from 4 to 42 years of age. Nine cases were male, and three were female.

TOXIC-SHOCK SYNDROME

In 1982, 24 Texas residents were reported to have toxic-shock syndrome (TSS), a decrease from the 31 cases reported for 1981. Twenty-two. cases (92%) occurred in females and two cases (8%) in males. Of the 24 cases, 19 (79%) were related to tampon use. TSS symptoms began anywhere from one to six days after the onset of menstruation and tampon use. Tampon brands reportedly used were Playtex®, Tampax®, and Kotex®. Staphylococcus aureus was isolated from all non-tampon-related cases and 89% of vaginal isolates from tampon-related cases. The five non-tampon-related cases had S. aureus isolated from a blister, a furuncle, an abscess, the bloodstream, and the vagina.

In 1982, ages of tampon-related cases ranged from 14 to 34 with a mean age of 21 years. Ages of non-tampon-

related cases ranged from 8 to 26 with a mean age of 21 years. All cases were white. Two TSS deaths occurred for a case-fatality ratio of 8%. One death was not related to tampon use and occurred in an 8-year-old, white female who had septic arthritis and S. aureus septicemia. The other TSS death occurred in a 34-year-old, white female who was using tampons at the time of onset. She developed a sudden onset of nausea, vomiting, diarrhea, and myalgia. Attributing her symptoms to the "flu," she did not remove her tampon nor did she seek medical care until she was severely hypotensive and disoriented. Death occurred four days later.

Organ systems involved in the 24 TSS cases were: mucous membrane (100%), gastrointestinal (88%), muscular (83%), renal (50%), hepatic (33%), central nervous system (17%), and hematologic (13%). Besides the involvement of three or more of the above systems. the cases also had fever (>102°F), hypotension (systolic blood pressure <90 mm Hg, syncope, or orthostatic hypotension), and a rash with subsequent desquamation.

TRICHINOSIS

Trichinosis is caused by a helminth, Trichinella spiralis, which can infect the skeletal muscle of various domestic and wild mammals. The principal species involved include rats, bears, walruses, and most importantly from the public health perspective, swine. The infection is transmitted through the consumption of animal tissues containing viable larval cysts.

Raw pork is not inspected for Trichinella cysts, in spite of the "U.S. Inspected and Passed" stamp. The disease is rare in the United States because laws are enforced that require: 1) a permit be obtained prior to feeding garbage to swine, 2) heating all garbage fed to swine sufficiently to inactivate any Trichinella cysts, and 3) precooking all "ready to eat" pork products, such as summer sausage, such that "all parts of pork tissue be heated to a temperature not lower than 137°F (58.3°C)." Individuals can further ensure the safety of pork they eat by freezing it (5°F or -15°C) for twenty days prior to cooking, and/or by thorough cooking so that the internal temperature reaches at least 137°F. Properly cooked pork is gray in color throughout, not pink. New evidence suggests that microwave ovens may not always provide the internal heating necessary to kill Trichinella cysts found deep in pork muscle. Pork cooked in a microwave should be heated in a conventional oven following microwaving to ensure adequate internal temperature (137°F).

Two cases of trichinosis were reported in Texas during 1982. Both cases were physicians. While attending a conference in Keystone, Colorado, they were among four persons who ate Cordon Bleu at a local restaurant. Subsequent investigation revealed that this Cordon Bleu was made with pork tenderloin rather than veal, and was heated only to the point that cheese inside the meat was melted. Fifteen to eighteen days later, three of those eating the Cordon Bleu had onset of clinical symptoms compatible with trichinosis: fever, headache, myalgia, and periorbital edema. The diagnosis of trichinosis was confirmed serologically in two cases with Bentonite Flocculation titers (done at CDC) positive for trichinosis. All the cases recovered fully.

The two 1982 cases are epidemiologically very different from the two cases reported in 1981, when one case reported consuming raw meats, and the other had previously eaten home-prepared pork obtained directly from a farm. These four Texas cases demonstrate the contrasting extremes in trichinosis exposures that health care providers must appreciate.

TUBERCULOSIS

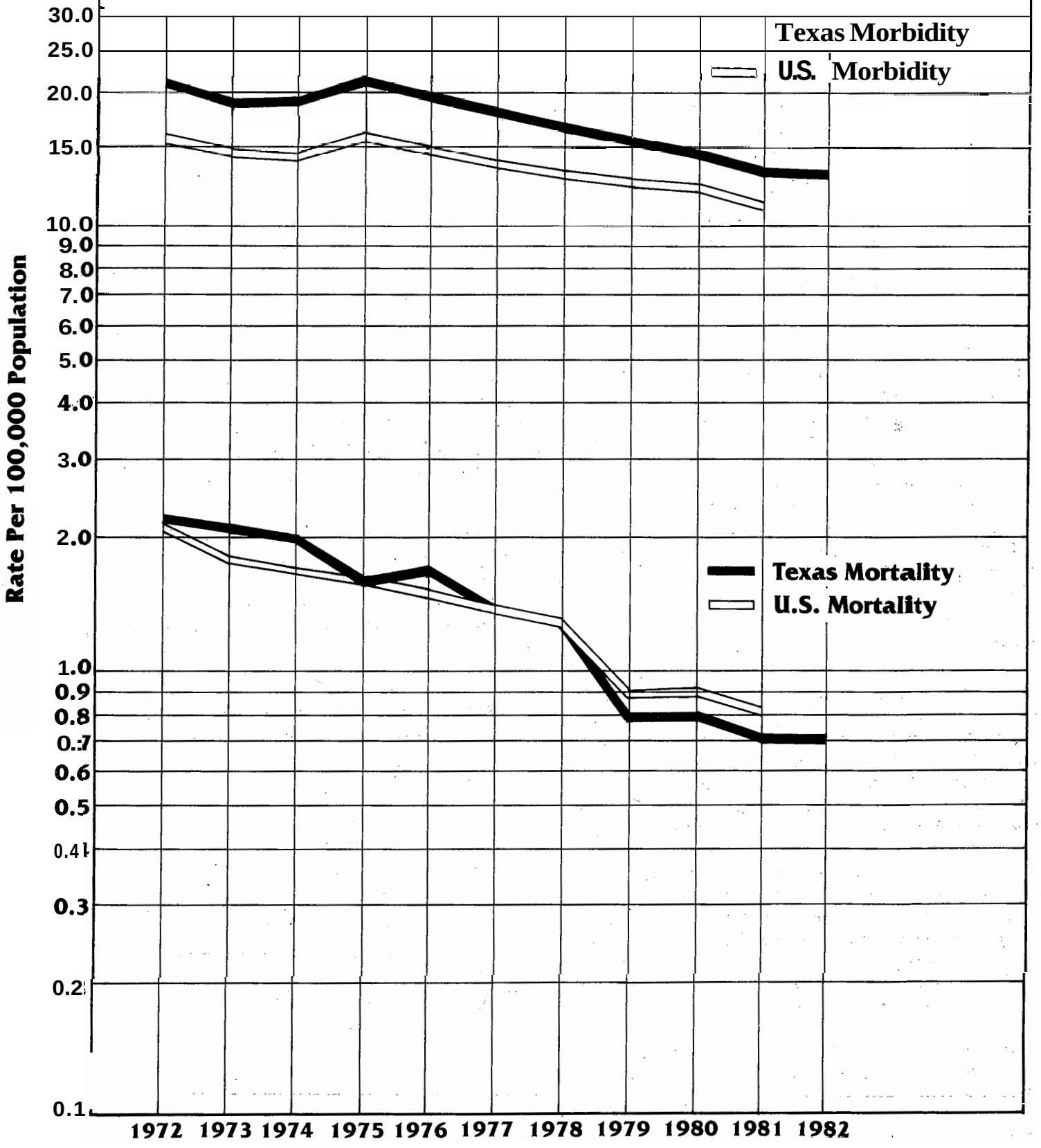
In Texas, 2,045 cases of tuberculosis were reported in 1982, an increase of 30 (1.5%) cases over 1981. This increase, though slight, interrupts eight years of steady decline in reported morbidity. Due to the growth in the state's population, the incidence rate remained at 13.7 cases per 100,000 population, the same as in 1981. Six of the metropolitan areas of Texas with populations over 250,000 reported 63.1 % of the total morbidity. In 1981, these areas reported 1,160 cases, and in 1982, 1,289 cases were reported, resulting in an overall increase of 11% in these areas. This is believed to be a result of the exceptionally large population increases in several areas of the state. Employment conditions in Texas, when compared to those in other states and in Mexico, attracted many persons, especially those in lower socioeconomic groups, with an above-average incidence of infection and disease. The mortality rate from tuberculosis declined from 0.8 deaths per 100,000 population in 1981 to 0.7 in 1982 (Figure 19).

Efforts to identify and prevent tuberculosis in preschool children have been unsuccessful in significantly reducing the incidence of disease in that population. During 1982, 87 children under five years of age were reported as having the disease. The age-specific incidence rate of six cases per 100,000 was above the estimated national rate. Tuberculosis in the first few years of life indicates that transmission has not been interrupted; almost always, the source case is a family member or babysitter. Many of the families from which the young patients came included individuals born in countries where tuberculosis is still a leading cause of illness and death. Distribution of cases by age is shown in Table 15.

Tuberculosis is a systemic disease with diverse manifestations. Definitive diagnosis usually requires

Figure 19

Tuberculosis Morbidity and Mortality Per 100,000 Population Texas and the United States, 1972-1982



* 1982 data for U.S. not available

Table 15

Reported Cases Of Tuberculosis In Texas By Race, Sex, And Hispanic Ethnicity, 1982

Age Group	Male	Female	White*	Black	Amer. Indian/ Alaskan Native	Asian/Pacific Islander	Hispanic Only
0-4	42	45	58	23	0	6	50
5-14	38	36	56	7	0	11	47
15-24	138	87	144	43	2	36	119
25-34	190	138	196	85	1	46	127
35-44	194	81	157	84	0	34	83
45-54	240	96	225	83	2	26	98
55-64	235	65	225	62	1	12	98
65+	283	137	317	80	3	20	143
TOTAL	1360	685	1378	467	9	191	[illegible]

*Including Hispanic

the demonstration of Mycobacterium tuberculosis in tissues or secretions by microscopy and culture. During 1982, 1,645 cases were established through positive bacteriologic examinations of sputum and smear. Diagnosis of the remaining cases were based on chest x-rays and other clinical evidence. Although the site of disease involvement is usually the lungs, extrapulmonary tuberculosis represents an almost constant 12% of cases reported annually – about 15% nationally. Of the 2,045 cases reported in 1982, 246 were extrapulmonary, and 89 cases affected both the lungs and other sites.

TULAREMIA

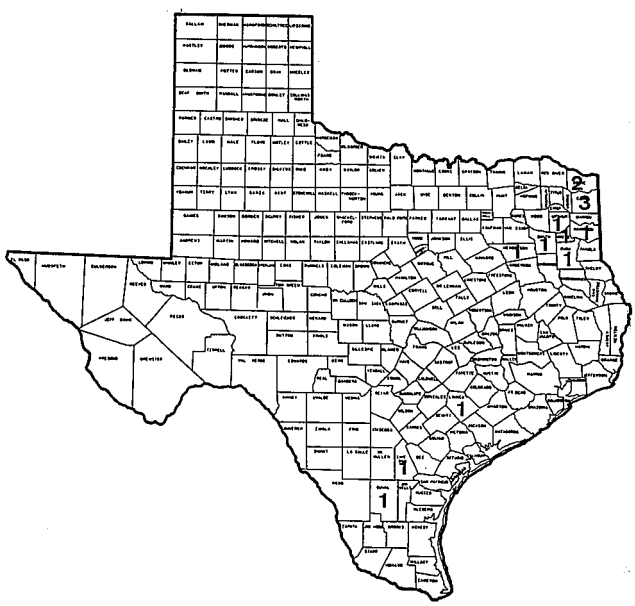
Tularemia is a zoonosis produced by a small, gram-negative coccobacillus, Francisella tularensis. This organism is distributed throughout the Northern Hemisphere and has been recovered from 100 species of wild animals, at least nine species of domestic animals, and several blood-sucking arthropods. Man usually acquires the infection through skinning or handling infected animals (often rabbits) or through bites of infected arthropods (usually ticks). Other sources of transmission include animal bites, inhalation of infectious aerosols, drinking contaminated water, or eating inadequately cooked meat from an infected animal. As few as ten organisms may produce infection if they are inhaled or enter a break in the skin, whereas at least 10^8 organisms must be ingested to produce illness.

After an incubation period of three to five days (range 1-14 days), a skin papule usually develops at the site of entry, followed two to four days later by an eschar-forming ulceration accompanied by fever and lymphadenopathy. This type of tularemia is the ulceroglandular form and accounts for 75-85% of all cases. Other types include glandular (5-10%) with lymphadenopathy and fever but no skin ulcer; typhoidal (5-15%) with fever and often pneumonia, but without lymphadenopathy; and rarely oculoglandular or oropharyngeal tularemia.

The diagnosis is almost always made serologically by a four-fold rise in tularemia agglutination titers. F. tularenis is rarely seen in gram stains of infected material and does not grow on most ordinary media. In addition, most laboratories are reluctant to culture F. tularenis because of the risk of aerosol transmission to laboratory personnel.

Figure 20

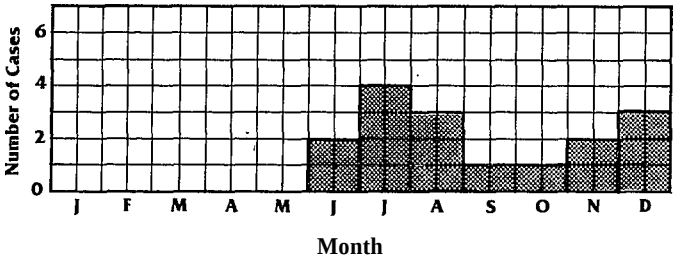
Reported Cases Of Tularemia In Texas By County Of Exposure, 1982



Sixteen cases of tularemia were reported in Texas in 1982. Fifteen cases were confirmed serologically, and F. tularensis was isolated from the blood of one patient. Fourteen cases contracted their illness within Texas (Figure 20). Two infections were acquired outside the state, one in Oklahoma and one in Arkansas. Eleven of the 14 cases infected in Texas contracted the disease in the northeast portion of the state. Six cases (37.5%) were the ulceroglandular form, six were glandular, and four typhoidal. Two of the typhoidal cases and one ulceroglandular cases had associated pneumoniz.

Figure 21

Reported Cases Of Tularemia In Texas By Month Of Onset, 1982



Onset for all cases occurred during June through December (Figure 21). The dates of onset curve is biphasic, with peaks in July and December. These biphasic distribution patterns correlate well with different sources of exposure. All 10 cases which had onset of illness from June through September were associated with either tick exposure (nine cases) or a biting fly (one case). The exposure source for the October case is unknown. All five cases with onsets of illness in November and December were associated with skinning animals (rabbits-3, squirrel-1, badger-1). Two of the five cases associated with skinning animals had the typhoidal form of tularemia, a pattern observed in previous years which may be related to an increased risk for aerosol inoculation. Fourteen cases were male, two were female. Ages ranged from five months to 62 years. Five cases were under ten years of age; all of these cases were associated with tick exposure. All sixteen cases recovered.

TYPHOID FEVER

Typhoid fever is an acute febrile disease caused by Salmonella typhi. Ingestion of food or water contaminated directly or indirectly with human excreta from a patient with typhoid fever or from a carrier of S. typhi is the usual source of infection. A case of typhoid is confirmed by the isolation of S. typhi from the blood, feces, urine, or tissues.

Forty-two'(42)cases of typhoid fever were reported in Texas in 1982, a number comparable to that of recent years. In 1981, 127 cases were reported, but 80 of these occurred as the result of an outbreak in San Antonio.

Twenty-one cases (50%)had exposure outside of the United States and are classified as imported cases. Mexico was the country of exposure for eleven of these cases.

Twenty-three cases occurred'in males and 19 cases in females. The cases ranged in age from 1 to 69 years with a mean of 20 years. Eighty-one percent were 30 years of age or younger. The distribution of cases by race /ethnicity included 11 cases (26%)classified as white, 21 cases (50%)as Hispanic, 7 cases (17%) as black, and 3 cases (7%) as Asian.

Clinical signs and symptoms were noted with the following frequencies: fever-98%; diarrhea-71%; headache-60%; anorexia-50%; and malaise-48%. Although typhoid fever is not typically a seasonal disease, nineteen (45%) of the Texas cases had onset of symptoms in September, October, or November.

VACCINE-PREVENTABLE DISEASES

Diphtheria

One case of diphtheria was reported in Texas in 1982. The patient, a 25-year-old, white female, recalled receiving initial vaccinations but had not received a booster dose in over 20 years. This case occurred in Dallas County in July.

With the advent and continued enforcement of school and child-care immunization requirements, diphtheria outbreaks are no longer a significant threat in the state. However, the single cases of disease that are occasionally reported point out the need for continued booster immunizations throughout life.

Measles

In 1982, 129 cases of measles were reported in Texas. This was the lowest number of measles cases ever recorded in a single year in the state and represented a decrease of 85% from the 853 cases reported in 1981. This decline in morbidity is attributed to increasing levels of measles vaccination, intensified surveillance activities, and rapid control measures adopted by state and local health authorities.

Age-specific attacks rates for for 1981-1982 show a shift in the age groups primarily affected by the disease, from young children to adolescents and young adults (Table 16).

Table 16

Age-Specific Incidence Rates For Measles Texas, 1981 and 1982 Compared

AGE GROUP	1981 POPULATION	1981 #CASES	1981 CASES/ 100,000	1982 POPULATION	1982 #CASES	1982 CASES/ 100,000
UNK	—	18	—	—	—	—
<1	249,187	210	84.3	241,142	6	2.5
1-4	1,113,859	260	23.3	1,004,640	10	1.0
5-9	1,551,186	125	8.1	1,246,200	0	0.0
10-14	1,581,138	92	5.8	1,223,389	6	0.5
15-19	1,452,916	103	7.1	1,360,093	82	6.0
20+	8,731,294	45	0.5	9,869,029	25	0.3
TOTAL	14.679.580	853	5.8	14,944,493	129	0.9

Of the 129 total cases, 103 (80%) occurred as a result of an outbreak at Baylor University in Waco, Texas. This outbreak affected 98 students and five persons in the community at large. The source was a student who had recently returned from travel to Central America. A smaller outbreak of eight cases occurred in Austin and primarily affected school age children. The source was a traveler who had recently returned from Puerto Rico. Thus, 111 cases (86%) of the total 1982 measles morbidity in Texas were attributed to importations.

Mumps

During 1982, a total of 255 cases of mumps was reported in Texas, a 12% increase over the 227 cases in 1981. However, since 1967 when the vaccine was introduced, there has been a 98% reduction in incidence.

Mumps is not considered a great public health threat to the general population. Its greatest effect is on post-pubertal individuals. In 1982, 29% of the reported cases were 15 years of age and older.

It is anticipated that morbidity will continue its decline during the 1980's as mumps vaccination requirements are introduced to more students in school. By September 1, 1990, all students will have to present proof of vaccination or a physician-verified history of illness to enroll in a Texas school.

Pertussis

The number: of pertussis cases reported to the Texas Department of Health in 1982 decreased 13% from the 91 cases reported in 1981.

Pertussis morbidity has remained relatively static during the last ten years with an average of 95 cases reported per year in Texas. However, this level of morbidity is within acceptable levels in consideration of vaccine effectiveness and the highly contagious nature of the disease.

Recently, adverse reactions associated with the administration of pertussis vaccine have received much media attention. The American Academy of Pediatrics and the Advisory Committee of Immunization Practices continue to recommend the use of this vaccine. The decrease of pertussis cases over the past 12 years is due in part to the administration of the vaccine.

Rubella

A total of 120 cases of rubella was reported to the Texas Department of Health in 1982. This represents a 32% reduction from 1982, and the lowest incidence since rubella was first officially reported in 1966.

Since 1970, over 3.5 million doses of rubella vaccine (single antigen and combination) have been administered in public clinics in Texas. Vaccination efforts during the period 1970-1982 were responsible far a 99% reduction in morbidity.

Rubella does, ,however, still represent a threat to females of childbearing age. In 1982, 20 cases (17%) were reported in females between 15-39 years of age. However, 1982 marked the first year since 1968 that no cases of congenital rubella syndrome were reported.

Tetanus

Eight cases of tetanus were reported in Texas in **1982,** the same number as in **1981.** Cases occurred in South, Central, and East Texas; two cases occurred in Hidalgo County and one case each in DeWitt, Jefferson, Nacogdoches, Nueces, Travis, and Webb counties.

Despite the widespread use of tetanus vaccine in the last **35** years, five **(62.5%)** of the cases had never received a tetanus immunization. Vaccination status of the oiher three cases **(37.5%)** was unknown.

The ages of the eight cases varied from **10** days to **85** years. Two infants were under six weeks of age, one individual was **24** years old, and five were over **60** years of age. The 10-day-old infant from Hidalgo County developed neonatal tetanus after being delivered by a lay midwife. Other situations which led to tetanus included cuts on extremities while working in the garden, a blister becoming gangrenous in a diabetic male, and a puncture wound made by a wooden gate.

Of the eight tetanus cases, **50%** were white, and **50%** were Hispanic. The percentage of female and male cases was similar to the **1981** statistics: **62.5%** were female and **37.5%** were male. The case-fatality ratio was identical to that of **1981, 37.5%.** The ages of those who died as a result of tetanus were **62, 69,** and **85** years.

VENEREAL DISEASES

In **1982, 92,763** cases of venereal diseases were reported in Texas: **81,580** cases of gonorrhea; **11,182** cases of syphilis; and 1 case of chancroid. This represents an overall increase of **1.9%** over the previous year and reflects only the number of cases reported in the civilian population. An additional **2,465** cases of gonorrhea and **126** cases of syphilis were reported in military personnel.

Gonorrhea

The number of cases of gonorrhea reported in Texas decreased from **81,822** in **1981** to **81,850** in **1982.** This represents a **0.3%** decrease in the number of reported cases, and the case rate — **545.9** cases per **100,000** population — declined for the fourth consecutive year. In spite of this overall decrease, **12** counties in Texas had incidence rates which exceeded the state rate, and two counties (Harris and Potter) had rates more than twice that of the state.

The incidence of gonorrhea correlates with intensity of sexual activity and, as expected, was highest in the younger age groups, with the peak among **20-24** year-olds of both sexes. The case rate reported for males was **726.8** compared to a rate of **370.4** for females. Gonorrhea was also reported more often in blacks than in whites.

Pelvic inflammatory disease (PID) is a major complication of untreated gonorrhea in women. Since **1978,** the Texas Department of Health has undertaken a program directed toward the identification of women with these complications. Gonococcal pelvic inflammatory disease (G/PID) results in significant medical problems. It is linked with recurrent pelvic infections, pregnancy, and sterility. The economic costs associated with these conditions are high. The purpose of the G/PID initiative was to identify women with unrecognized G/PID and to assist with the medical management and follow-up of the patient and her sexual partners. In **1982, 1,819** cases of G/PID were reported in Texas. This was a **21%** decrease from the previous year. Among the number of cases of gonorrhea in women, one in fifteen was reported with G/PID. Women in the **15-24** year age group accounted for **74%** of the total reported G/PID in Texas in **1982.**

In **1976,** the first case of penicillinase-producing Neisseria gonorrhoeae (PPNG) was reported in Texas. This strain of the gonococcus, which is resistant to treatment with penicillin, was identified only sporadically until **1980.** During those years, cases identified and reported to the Texas Department of Health totaled only **29.** However, during **1982,** there were **193** cases reported. This is an increase of **89%** over the **102** cases reported in **1981.** There was broad geographic distribution; cases of PPNG were reported from nine of the twelve Public Health Regions across the state. This increase in case reporting paralleled an increase that was occurring nationwide. Increased surveillance, routine testing for penicillin resistance in many of the affiliated laboratories statewide, and intensified case investigations have been responsible for the identification of some of these cases.

Syphilis

Syphilis was more prevalent in Texas in **1982** than in **1981.** The overall incidence rate of **74.8** cases per **100,000** population was **19%** greater than the **1981** rate. Infectious syphilis (primary and secondary stages) increased by **17%** from a rate of **36.3** to **42.4.** In terms of actual number of cases of primary and secondary syphilis, there were **6,338** reported in **1982** (an average of **122** new cases per week); this is the largest number of syphilis cases ever reported in a single year in Texas. Case rates for syphilis varied widely in different areas of the state. Some of the variation reflects differences in casefinding activity and availability of public clinics, and not true differences in disease incidence. For example, primary and secondary syphilis case rates among the twelve Public Health Regions range from **4.9** per

100,000 in Public Health Region 4 to 73.4 per 100,000 in Public Health Region 11. The number of cases of primary and secondary syphilis continues to be highest in the major urban areas in Texas. Over 76% of the state's primary and secondary syphilis cases were reported in six of Texas' most populous counties; these counties comprise only 47% of the state's population.

Fifty cases of congenital syphilis were reported in Texas in 1982. This represents an increase of 35% over the previous year. Of the 50 cases reported, 47 were live births and three were stillbirths, six infants expired within six months of life. Among the reported cases, 22 (44%) were black, and 28 (56%) were Hispanic. There were no congenital cases reported among non-Hispanic whites. The mean age for the mothers of these infants was 22.9 years. Twelve (24%) were in the 15-19 year age group; only three of this group were married. Among all 50 mothers, 36% were married. 10% were divorced or separated, and 54% were single. It is also significant that 28 (56%) of the 50 mothers delivering infants with congenital syphilis received no prenatal care.

VIRAL HEPATITIS

"Viral hepatitis" refers to an acute inflammatory disease of the liver whose etiology can be attributed to one of several viruses. There are two major types of viral hepatitis which can be identified by serologic methods and usual modes of transmission.

Hepatitis type A (infectious hepatitis, epidemic jaundice, epidemic hepatitis) is transmitted via the fecal-oral route. The disease is usually spread by person-to-person contact, but food-borne and water-borne outbreaks do occur. The age groups most commonly infected are young children and young adults. The incubation period ranges from 15 to 50 days, and the clinical picture consists of malaise, anorexia, gastrointestinal symptoms, and flu-like illness, followed one to two weeks later by dark urine, light-colored stools, and jaundice.

In contrast, hepatitis type B (serum hepatitis, homologous serum jaundice) is transmitted via parenteral contact with infected blood or blood products or via close personal contact, especially sexual contact. The disease is commonly seen in adolescents and adults, with distinct population groups who are at increased risk of acquiring the infection. High-risk groups include health professionals, male homosexuals, patients and staff of hemodialysis units, and close personal contacts of acute and chronic hepatitis type B cases. The incubation period for hepatitis type B runs from 50-180 days, and although symptoms may resemble those for hepatitis type A, their onset is more gradual. Complications occur in 10% of symptomatic cases; these include chronic carrier states in otherwise healthy individuals, chronic persistent hepatitis, chronic active hepatitis, and fulminant hepatitis.

Viral hepatitis cases are reported to the Texas Department of Health under one of three classifications: hepatitis type A, hepatitis type B, or hepatitis type unspecified. With the advent of specific laboratory testing for hepatitis types A and B, a new category of viral hepatitis has emerged. For reporting purposes, however, the small number of cases of non-A, non-B hepatitis, have been included in the "hepatitis type unspecified" category. The epidemiology of non-A, non-B hepatitis is usually similar to that for hepatitis B. Non-A, non-B hepatitis is closely associated with post-transfusion hepatitis; fully 80-90% of all transfusion-transmitted hepatitis are attributed to non-A, non-B hepatitis.

Table 17

Reported Cases Of Viral Hepatitis In Texas By Race/Ethnicity, 1982

	Hepatitis A		Hepatitis unspecified		Hepatitis B	
Race/Ethnicity	**Cases**	**Percentage**	**Cases**	**Percentage**	**Cases**	**Percentage**
White	1,936	60.01%	1,158	55.92%	576	55.23%
Hispanic	905	28.05	555	26.80	175	16.78
Black	186	5.77	211	10.19	184	17.64
Asian/Pacific Islander	9	0.28	4	0.19	16	1.53
American Indian	3	0.09	1	0.05	3	0.29
Race Not Specified	187	5.80	142	6.85	89	8.53
TOTAL	3,226	100.00%	2,071	100.00%	1,043	100.00%

Table 18

Reported Cases And Incidence Rates Of Viral Hepatitis For Selected Counties In Texas, 1982

		Hepatitis A		Hepatitis Unspecified		Hepatitis B	
County	Population	Cases	Rate*	Cases	Rate*	Cases	Rate*
Bexar	1,025,316	248	24.19	16	1.56	34	3.32
Dallas	1,606,720	849	52.84	265	16.49	218	13.57
El Paso	513,302	208	40.52	33	6.43	86	16.75
Harris	2,571,295	286	11.12	511	19.87	219	8.52
Nueces	275,356	110	39.95	69	25.06	83	30.14
Potter	100,194	21	20.96	18	17.97	17	16.97
Tarrant	891,619	371	41.61	94	10.54	73	8.19
Tom Green	87,655	67	76.44	20	22.82	8	9.13
Travis	442,839	94	21.23	127	28.68	65	14.68
Wichita	120,209	65	54.07	25	20.80	11	9.15
TEXAS	14,944,493	3,226	21.59	2,071	13.86	1,043	6.98

*Rate per 100,000 population

In 1982, the total number of viral hepatitis cases reported to the Texas Department of Health was 6,340. This represents the largest total number of hepatitis cases ever reported in Texas.

This total includes 3,226 cases of hepatitis type A, 1,043 cases of hepatitis type B, and 2,071 cases of hepatitis type unspecified. There are several reasons that suggest that the majority of cases reported as hepatitis type unspecified are actually hepatitis A. Serologic testing for hepatitis A is not performed as frequently as testing for hepatitis B. Moreover, the epidemiologic analysis of cases of hepatitis unspecified shows strong similarities to cases of hepatitis A. For example, the two groups are remarkably similar with regard to racelethnicity (Table 17).

The incidence rate of hepatitis A in 1982 was 21.59 per 100,000 population. As in previous years, the majority of hepatitis A cases was reported from major metropolitan areas (Table 18).

Cases were distributed almost equally among males and females with 53.0% and 46.9%, of cases respectively. Although cases of hepatitis A occurred in all age groups, the majority of cases was reported in children and in young adults. For cases reported among whites, 84.6% (1638/1936) of the total cases occurred in persons age 35 years or younger. Among Hispanics, 81.8% (7401905) of cases occurred in persons age 24 or less. Of the eight deaths (0.25% of all cases) that were reported for hepatitis A, only one case, a 91-year-old, white female, was over the age of 50.

Day-care centers, particularly those caring for children under two years of age, continued to be important foci for the transmission of hepatitis A. The Bureau of Epidemiology investigated several day-care-associated outbreaks in 1982. These investigations re-emphasized the need for a rapid and comprehensive public health response when two or more children or parents of children in a day-care center develop hepatitis.

Nineteen-eighty-two (1982) marked the first year in which reported cases of hepatitis B topped the 1000 mark. The 1,043 cases of hepatitis B reported constituted an increase of 26.7% over the 1981 total of 823 cases. The overall incidence rate was 7.0 per 100,000 population. Table 18 shows specific incidence rates of hepatitis B for selected metropolitan areas across the state. There were 11 deaths attributed to hepatitis B, for a case-fatality ratio of 1.05%. One fatal infection occurred in a two-month-old, white male. The remaining ten deaths occurred in adults with an average age of 56.2 years.

Other epidemiologic characteristics differentiate cases of hepatitis B from either hepatitis A or hepatitis type unspecified. Reported cases by racelethnicity (Table 17) continued to show fewer cases in Hispanics than would be expected considering the Hispanic population in Texas. Conversely, blacks accounted for more cases of hepatitis B than expected. Asian/Pacific Islanders also form a small but significant group in Texas who are at increased risk of hepatitis B infection. It is likely that most of the cases reported as Asian/Pacific Islanders

were either immigrants from Southeast Asia or else were close contacts of such immigrants.

The distribution of hepatitis B cases by age and sex also distinguishes hepatitis B from hepatitis A. Usually the majority of cases occurs in males. In 1982, 65.6% of hepatitis B cases were male. Hepatitis B is most commonly seen among adults and teenagers. Among whites, the majority of cases (72.6%) occurred in persons age 15 to 39. Among blacks, 82.1% of the cases were in this age group.

Nineteen-eighty-two (1982) also marked the beginning of programs using the newly licensed hepatitis B vaccine among high-risk population groups. The Texas Department of Mental Health and Mental Retardation initiated a program of serologic screening and immunizations for patients and staff at the various state schools in Texas. Many hospitals are now offering the vaccine to their employees. It is hoped that these measures will have a beneficial effect on the morbidity caused by hepatitis B in high-risk groups.

APPENDIX

TABLE I

REPORTED CASES OF SPECIFIED NOTIFIABLE DISEASES, TEXAS, 1973 - 1982

DISEASE *******	1982 ****	1981 ****	1980 ****	1979 ****	1978 ****	1977 ****	1976 ****	1975 ****	1974 ****	1973 ****
AMEBIASIS	493	604	355	301	210	216	146	129	186	195
ANTHRAX	0	0	0	0	0	0	0	0	0	0
ASEPTIC MENINGITIS	785	622	432	753	405	315	312	362	228	180
BOTULISM	1	4	0	3	4	1	0	0	2	0
BRUCELLOSIS	27	45	28	28	23	33	77	29	18	36
CHICKENPOX	11050	10824	9478	7009	6163	8222	8280	9213	7505	11034
CHOLERA	0	3	0	0	0	0	0	0	0	1
CONGENITAL RUBELLA SYNDROME	0	1	1	4	2	2	3	1	12	5
DENGUE	2	1	61	0	3	0	0	0	0	0
DIPHTHERIA	1	0	1	0	0	4	1	6	9	18
ENCEPHALITIS, INFECTIOUS	157	91	63	59	47	55	35	82	30[1]	43[1]
GONORRHEA [2]	81580	81822	80297	81828	88943	84789	82304	76486	75086	66900
HANSEN'S DISEASE	29	33	32	31	28	26	16	17	18	23
HEPATITIS, TYPE A	3226	2721	2978	3289	2696	2086	1762	2955	3818	
HEPATITIS, TYPE B	1043	823	819	685	586	650	497	490	357	5189[3]
HEPATITIS, TYPE UNSPECIFIED	2071	1608	2194	1840	1198	1064	836	573	116	
INFLUENZA & FLU-LIKE ILLNESS	93736	143955	99292	86689	99394	67094	132749	92585	118847	109669
LEPTOSPIROSIS	18	9	3	8	14	6	6	10	5	1
MALARIA	55	87	115	45	33	27	16	19	9	10
MEASLES	129	851	181	670	1033	2032	265	275	212	532
MENINGOCOCCAL INFECTIONS	238	327	145	166	144	147	140	151	116	111
MUMPS	255	227	212	908	1527	995	1755	4077	3500	3786
PERTUSSIS	79	91	82	104	132	75	36	136	99	115
PLAGUE	1	0	0	0	0	0	0	0	0	0
POLIOMYELITIS. PARALYTIC	0	0	0	0	0	3	0	2	0	0
PSITTACOSIS	8	9	8	5	5	6	2	6	58	5
Q FEVER	1	0	2	2	0	1	2	2	0	1
RABIES IN ANIMALS	796	698	945	1195	556	382	329	325	383	264
RABIES IN MAN	0	0	0	1	0	0	1	0	0	0
RELAPSING FEVER	4	1	1	8	0	1	1	0	0	0
RHEUMATIC FEVER, ACUTE	12	18	15	14	25	17	29	22	33	29
ROCKY MOUNTAIN SPOTTED FEVER	64	45	31	22	28	30	29	34	18	11
RUBELLA	120	176	131	212	407	776	267	370	317	1136
SALMONELLOSIS	2173	2612	2456	2198	1199	1045	917	1110	994	1211
SHIGELLOSIS	2173	2299	2162	2299	1865	1565	1304	1447	1126	1904
ST. LOUIS ENCEPHALITIS	18	4	68	5	0	9	77	37	**	**
STREP THROAT, SCARLET FEVER	47473	46072	32113	37526	29433	31595	36385	35861	43817	44613
SYPHILIS, PRIMARY & SECONDARY [2]	6338	5329	3828	3154	2637	2123	2041	1579	1405	1521
TETANUS	8	8	13	17	11	16	12	16	4	10
TRICHINOSIS	2	2	6	4	2	11	2	4	4	4
TUBERCULOSIS	2045	2015	2075	2090	2160	2326	2454	2600	2311	2224
TULAREMIA	16	23	12	11	6	11	10	19	8	8
TYPHOID FEVER	42	127	67	67	40	28	18	19	13	14
TYPHUS FEVER. ENDEMIC	41	49	61	59	33	55	58	30	12	28
TYPHUS FEVER, EPIDEMIC	0	0	0	0	0	0	0	0	0	0
VENEZUELAN EQUINE ENCEPHALITIS	0	0	0	0	0	0	0	0	0	0
WESTERN EQUINE ENCEPHALITIS	4	4	0	0	0	7	0	0	**	**
YELLOW FEVER	0	0	0	0	0	0	0	0	0	0

1. Includes arboviral encephalitides
2. Civilian cases only
3. Includes all types of viral hepatitis

** Not reportable

TABLE II

REPORTED CASES OF SPECIFIED NOTIFIABLE DISEASES PER 100,000 POPULATION, TEXAS, 1973 - 1982

DISEASE *******	1982 ****	1981 ****	1980 ****	1979 ****	1978 ****	1977 ****	1976 ****	1975 ****	1974 ****	1973 ****
AMEBIASIS	3.30	4.11	2.49	2.25	1.61	1.68	1.16	1.05	1.55	1.65
ANTHRAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASEPTIC MENINGITIS	5.25	4.24	3.04	5.63	3.10	2.45	2.48	2.94	1.90	1.52
BOTULISM	0.01	0.03	0.00	0.02	0.03	0.01	0.00	0.00	0.02	0.00
BRUCELLOSIS	0.18	0.31	0.20	0.21	0.18	0.26	0.61	0.24	0.15	0.30
CHICKENPOX	73.94	73.73	66.61	52.36	47.23	63.93	65.72	74.79	62.45	93.27
CHOLERA	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
CONGENITAL RUBELLA SYNDROME	0.00	0.01	0.01	0.03	0.02	0.02	0.02	0.01	0.10	0.04
DENGUE	0.01	0.01	0.43	0.00	0.02	0.00	0.00	0.00	0.00	0.00
DIPHTHERIA	0.01	0.00	0.01	0.00	0.00	0.03	0.01	0.05	0.07	0.15
ENCEPHALITIS, INFECTIOUS	1.05	0.62	0.44	0.44	0.36	0.43	0.28	0.67	0.25[1]	0.36[1]
GONORRHEA [2]	545.90	557.37	564.32	611.34	681.56	659.32	653.26	620.93	624.83	565.51
HANSEN'S DISEASE	0.19	0.22	0.22	0.23	0.22	0.20	0.13	0.14	0.15	0.19
HEPATITIS, TYPE A	21.59	18.54	20.93	24.57	20.66	16.22	13.99	23.99	31.77	
HEPATITIS, TYPE B	6.98	5.61	5.76	5.12	4.50	5.05	3.94	3.98	2.97	43.86 [3]
HEPATITIS, TYPE UNSPECIFIED	13.86	10.95	15.42	13.75	9.18	8.27	6.64	4.65	0.97	
INFLUENZA & FLU-LIKE ILLNESS	627.25	980.62	697.81	647.66	761.64	521.73	1053.65	751.62	988.99	927.04
LEPTOSPIROSIS	0.12	0.06	0.02	0.06	0.11	0.05	0.05	0.08	0.04	0.01
MALARIA	0.37	0.59	0.81	0.34	0.25	0.21	0.13	0.15	0.07	0.08
MEASLES	0.86	5.80	1.27	5.01	7.94	15.80	2.10	2.23	1.76	4.50
MENINGOCOCCAL INFECTIONS	1.59	2.23	1.02	1.24	1.11	1.14	1.11	1.23	0.97	0.94
MUMPS	1.71	1.55	1.49	6.78	11.70	7.74	13.93	33.10	29.13	32.00
PERTUSSIS	0.53	0.62	0.58	0.78	1.01	0.58	0.29	1.10	0.82	0.97
PLAGUE	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POLIOMYELITIS, PARALYTIC	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00
PSITTACOSIS	0.05	0.06	0.06	0.04	0.04	0.05	0.02	0.05	0.48	0.04
Q FEVER	0.01	0.00	0.01	0.02	0.00	0.01	0.02	0.02	0.00	0.01
RABIES IN MAN	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
RELAPSING FEVER	0.03	0.01	0.01	0.06	0.00	0.01	0.01	0.00	0.00	0.00
RHEUMATIC FEVER	0.08	0.12	0.11	0.10	0.19	0.13	0.23	0.18	0.27	0.25
ROCKY MOUNTAIN SPOTTED FEVER	0.43	0.31	0.22	0.16	0.22	0.23	0.23	0.28	0.15	0.09
RUBELLA	0.80	1.20	0.92	1.58	3.13	6.03	2.12	3.00	2.64	9.60
SALMONELLOSIS	16.77	17.79	17.26	16.42	9.19	8.13	7.28	9.01	8.27	10.24
SHIGELLOSIS	14.54	15.66	15.19	17.18	14.29	12.17	10.35	11.75	9.37	16.09
ST. LOUIS ENCEPHALITIS	0.12	0.03	0.48	0.04	0.00	0.07	0.61	0.30	**	**
STREP THROAT, SCARLET FEVER	317.67	313.84	225.69	280.36	225.54	245.68	288.79	291.13	364.63	377.12
SYPHILIS, PRIMARY & SECONDARY [2]	42.41	36.30	26.90	24.30	20.20	16.51	16.20	11.41	11.69	12.86
TETANUS	0.05	0.05	0.09	0.13	0.08	0.12	0.10	0.13	0.03	0.08
TRICHINOSIS	0.01	0.01	0.04	0.03	0.02	0.09	0.02	0.03	0.03	0.03
TUBERCULOSIS	13.68	13.73	14.58	15.61	16.55	18.08	19.48	21.11	19.23	18.80
TULAREMIA	0.11	0.16	0.08	0.08	0.05	0.09	0.08	0.15	0.07	0.07
TYPHOID FEVER	0.28	0.87	0.47	0.50	0.31	0.22	0.14	0.15	0.11	0.12
TYPHUS FEVER, ENDEMIC	0.27	0.33	0.43	0.44	0.25	0.43	0.46	0.24	0.10	0.24
TYPHUS FEVER, EPIDEMIC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VENEZUELAN EQUINE ENCEPHALITIS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WESTERN EQUINE ENCEPHALITIS	0.03	0.03	0.00	0.00	0.00	0.05	0.00	0.00	**	**
YELLOW FEVER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Texas Population (in thousands)	14,944*	14,680	14,229	13,385	13,050	12,860	12,599	12,318	12,017	11,830

1. Includes arboviral encephalitides
2. Civilian cases only
3. Includes all types of viral hepatitis

** Not reportable
* Provisional

TABLE III

DEATHS FROM SELECTED NOTIFIABLE DISEASES AND CONDITIONS OF INTEREST TO PUBLIC HEALTH [1]

DISEASE/CONDITION	ICD [2]	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973
AMEBIASIS	006	1	2	6	5	2	4	5	3	5	5
ASEPTIC MENINGITIS	047	1	2	2	2	0	0	5	2	1	5
BOTULISM	005.1	0	0	0	0	1	0	0	0	0	0
BRUCELLOSIS	023	0	0	0	0	0	0	1	0	2	0
CHICKENPOX	052	4	5	7	5	7	8	10	5	7	19
CHILD BATTERING & OTHER MALTREATMENT	E967	25	22	15	13	26	41	28	*	*	*
CONGENITAL RUBELLA SYNDROME	771.0	1	0	0	0	0	1	0	4	5	2
DIPHTHERIA	032	0	0	1	0	0	1	1	0	2	0
ENCEPHALITIS, INFECTIOUS [3]	049	12	11	16	9	12	16	12	15	15	15
GONORRHEA	098	0	0	1	1	2	1	0	2	2	1
GUILLAIN-BARRE SYNDROME	357.0	14	8	8	13	18	14	6	14	16	12
HANSEN'S DISEASE	030	1	0	0	0	2	1	1	0	1	1
HEPATITIS, TYPE A	070.0-070.1	10	2	8	8	33	34	42	41	52	52
HEPATITIS, TYPE B	070.2-070.3	23	19	23	14	11	6	5	8	6	11
HEPATITIS, TYPE UNSPECIFIED	070.4-070.9	25	28	30	19	49	63	63	31	43	57
INFLUENZA	487	29	133	70	30	190	64	567	211	110	249
LEPTOSPIROSIS	100	0	1	0	3	0	1	2	0	1	0
MALARIA	084	0	0	0	0	0	0	0	0	0	0
MEASLES	055	0	0	0	1	1	3	0	3	2	1
MENINGOCOCCAL INFECTIONS	036	26	34	24	27	37	25	20	28	22	39
MUMPS	072	0	0	0	0	1	0	2	0	0	0
MYCOBACTERIA INFECTIONS	031	8	9	8	8	6	4	2	5	7	6
PERTUSSIS	033	0	0	0	0	0	1	0	1	1	1
POLIOMYELITIS. ACUTE	045	0	1	0	0	0	0	0	0	0	1
REYE SYNDROME	331.8	7	24	17	19	**	**	**	**	**	**
RHEUMATIC FEVER. ACUTE	390-391	1	6	2	10	5	11	4	8	12	9
ROCKY MOUNTAIN SPOTTED FEVER	082.0	0	1	0	1	0	1	0	3	2	1
RUBELLA	056	0	0	0	0	0	2	1	1	0	3
SALMONELLOSIS	003	3	8	5	2	3	3	1	5	2	5
SHIGELLOSIS	004	0	0	0	1	6	7	3	6	5	6
ST. LOUIS ENCEPHALITIS	062.3	0	0	1	0	0	0	4	3	0	0
STREP THROAT, SCARLET FEVER	034	0	0	1	2	0	4	1	2	0	1
SUDDEN INFANT DEATH SYNDROME (SIDS)	798.0	324	332	323	340	298	293	217	203	175	0
SYPHILIS, TOTAL	090-097	5	13	12	12	15	13	18	26	15	31
TETANUS, EXCLUDING NEONATAL	037	2	4	5	5	4[4]	9[4]	4[4]	8[4]	3[4]	6[4]
TETANUS, NEONATAL	771.3	0	0	0	1	**	**	**	**	**	**
TRICHINOSIS	124	0	0	0	0	0	0	0	0	0	0
TUBERCULOSIS	010-018	119	134	111	112	163	176	211	200	237	247
TULAREMIA	021	0	0	0	1	0	0	1	0	1	3
TYPHOID FEVER	002.0	0	0	1	1	0	0	0	1	0	0
TYPHUS FEVER. ENDEMIC	081.0	0	0	0	0		0	0	0	0	

1. Source: Computer tabulations, Statistical Services, Bureau of Vital Statistics
2. Category numbers of the Ninth Revision of the International Classification of Diseases, adapted 1975
3. Exclusive of arboviral encephalitides
4. Includes deaths due to neonatal tetanus

* Prior to 1979, neonatal tetanus deaths were included in total tetanus deaths

** Data not available

TABLE IV

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY MONTH OF REPORT, TEXAS, 1982

DISEASE *******	TOTAL *****	JAN ***	FEB ***	MAR ***	APR ***	MAY ***	JUNE ****	JULY ****	AUG ***	SEPT ****	OCT ***	NOV ***	DEC ***
AMEBIASIS	493	5	12	48	18	36	108	50	47	24	71	29	45
ASEPTIC MENINGITIS	785	19	20	22	21	40	79	91	158	104	107	45	79
BOTULISM	1	0	0	0	0	0	0	0	0	0	0	0	1
BRUCELLOSIS	27	0	0	0	2	4	4	0	2	3	7	2	3
CHICKENPOX	11050	788	1404	1777	1811	2419	955	393	143	114	145	240	861
DIPHTHERIA	1	0	0	0	0	0	0	0	1	0	0	0	0
ENCEPHALITIS. INFECTIOUS[1]	157	1	8	9	6	15	12	16	23	26	18	7	16
GONORRHEA[2]	81580	6112	7210	5856	5729	6617	7276	6034	6704	9007	6457	7665	6916
HANSEN'S DISEASE	29	0	0	0	5	3	2	7	1	6	2	1	2
HEPATITIS, TYPE A	3226	200	382	256	264	360	174	240	208	260	323	246	313
HEPATITIS, TYPE B	1043	67	79	91	77	99	87	101	73	81	115	67	106
HEPATITIS, TYPE UNSPECIFIED	2071	91	148	203	163	173	158	183	142	177	274	152	207
LEPTOSPIROSIS	18	0	0	0	2	2	1	0	1	4	2	1	5
MALARIA	55	2	2	0	1	14	4	8	4	6	4	4	6
MEASLES	129	1	1	2	1	2	3	1	3	1	103	9	2
MENINGOCOCCAL INFECTIONS	238	20	29	38	34	18	15	14	13	7	9	17	24
MUMPS	255	10	27	12	28	35	14	15	11	12	34	16	41
PERTUSSIS	79	1	7	2	7	2	6	9	13	9	9	6	8
PSITTACOSIS	8	0	0	0	0	2	1	1	2	0	1	0	1
Q FEVER	1	0	0	0	0	0	0	0	1	0	0	0	0
RHEUMATIC FEVER	12	0	0	1	2	2	0	2	0	0	0	3	2
ROCKY MOUNTAIN SPOTTED FEVER	64	0	0	1	4	8	10	8	9	11	7	1	5
RUBELLA	120	10	8	14	9	18	12	8	6	9	12	5	9
SALMONELLOSIS	2506	138	95	85	95	165	179	243	179	325	477	292	233
SHIGELLOSIS	2173	116	114	138	100	138	153	289	285	272	234	187	147
ST. LOUIS ENCEPHALITIS	18	0	0	0	0	0	0	0	9	6	3	0	0
STREP THROAT, SCARLET FEVER	47473	4425	6018	6075	3951	5559	2683	2828	1947	2358	3510	3274	4845
SYPHILIS. PRIMARY & SECONDARY[2]	6338	448	641	384	419	415	647	507	446	668	506	686	571
TETANUS	8	0	0	0	1	3	0	1	0	0	1	0	2
TRICHINOSIS	2	0	0	0	0	0	0	0	0	0	2	0	0
TUBERCULOSIS	2045	142	161	198	178	188	170	188	184	214	112	147	163
TULAREMIA	16	0	0	0	0	0	0	1	1	4	3	1	6
TYPHOID FEVER	42	0	1	0	2	4	5	3	2	2	4	5	14
TYPHUS FEVER, ENDEMIC	41	0		1	1	3			2	4	5	4	6

1. Exclusive of arboviral encephalitides
2. Civilian cases only

TABLE V

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY AGE, TEXAS, 1982

DISEASE *******	TOTAL *****	<1 **	1-4 ***	5-9 ***	10-14 *****	15-19 *****	20-24 *****	25-29 *****	30-39 *****	40-49 *****	50-59 *****	60+ ***	UNK ***
AMEBIASIS	493	11	40	50	32	23	44	55	93	53	28	22	42
ASEPTIC MENINGITIS	785	226	92	75	70	63	72	70	73	13	11	8	12
BRUCELLOSIS	27	0	0	3	2	1	1	3	5	5	2	5	0
CHICKENPOX	11050	236	2784	4540	720	406 [1]							2364
DIPHTHERIA	1	0	0	0	0	0	0	1	0	0	0	0	0
ENCEPHALITIS, INFECTIOUS VIRAL [2]	157	11	15	22	13	12	21	14	15	9	4	15	6
GONORRHEA [3]	81580		53 [4]	45	479	17935	31406	18293	10971	1806	455	137	0
HANSEN'S DISEASE	29	0	0	0	1	1	1	2	4	6	8	6	0
HEPATITIS, TYPE A	3226	9	180	506	347	357	592	511	401	123	67	76	57
HEPATITIS, TYPE B	1043	4	7	15	17	77	244	226	208	88	57	61	39
HEPATITIS, TYPE UNSPECIFIED	2071	9	98	295	192	221	364	317	247	92	63	104	69
LEPTOSPIROSIS	18	0	1	1	2	2	1	1	3	4	1	2	0
MALARIA	55	1	1	5	4	1	13	11	11	4	1	1	2
MEASLES	129	6	10	0	6	82	24	1	0	0	0	0	0
MENINGOCOCCAL INFECTIONS	238	44	79	17	11	19	9	2	12	11	8	14	12
MUMPS	255	7	33	73	60	26	9	17	13	6	4	0	7
PERTUSSIS	79	53	17	2	5	0	0	0	0	0	0	0	2
PLAGUE	1	0	0	0	0	0	1	0	0	0	0	0	0
PSITTACOSIS	8	0	0	1	0	0	0	0	3	0	2	2	0
Q FEVER	1	0	0	0	0	0	0	0	1	0	0	0	0
RELPASING FEVER	4	0	0	0	0	0	0	0	2	0	2	0	0
RHEUMATIC FEVER, ACUTE	12	0	1	3	2	1	1	1	1	1	0	0	1
ROCKY MOUNTAIN SPOTTED FEVER	64	0	9	15	8	3	7	2	9	3	4	4	0
RUBELLA	120	25	30	29	4	11	8	5	4	0	0	0	4
SALMONELLOSIS	2506	629	494	109	88	52	119	94	145	84	115	189	388
SHIGELLOSIS	2173	126	797	308	115	74	129	136	141	38	29	77	203
ST. LOUIS ENCEPHALITIS	18	0	0	0	0	0	2	2	4	1	5	4	0
SYPHILIS, PRIMARY & SECONDARY [3]	6338		1 [4]	2	28	799	1922	1547	1464	407	136	32	0
TETANUS	8	2	0	0	0	0	1	0	0	0	0	5	0
TRICHINOSIS	2	0	0	0	0	0	0	1	1	0	0	0	0
TUBERCULOSIS	2045		87 [4]	48	26	69	156	185	286	307	338	543	0
TULAREMIA	16	1	1	3	0	1	1	2	2	1	3	1	0
TYPHOID FEVER	42	0	8	6	2	3	6	8	5	2	1	1	0
TYPHUS FEVER, ENDEMIC	41	0	1	0	2	3	6	5	4	4	6	10	0
WESTERN EQUINE ENCEPHALITIS	4	0	2	0	0	1	0	0	0	0	0	1	0

1. Includes all cases 15 years of age or older
2. Exclusive of arboviral encephalitides
3. Civilian cases only
4. Includes infants under one year of age

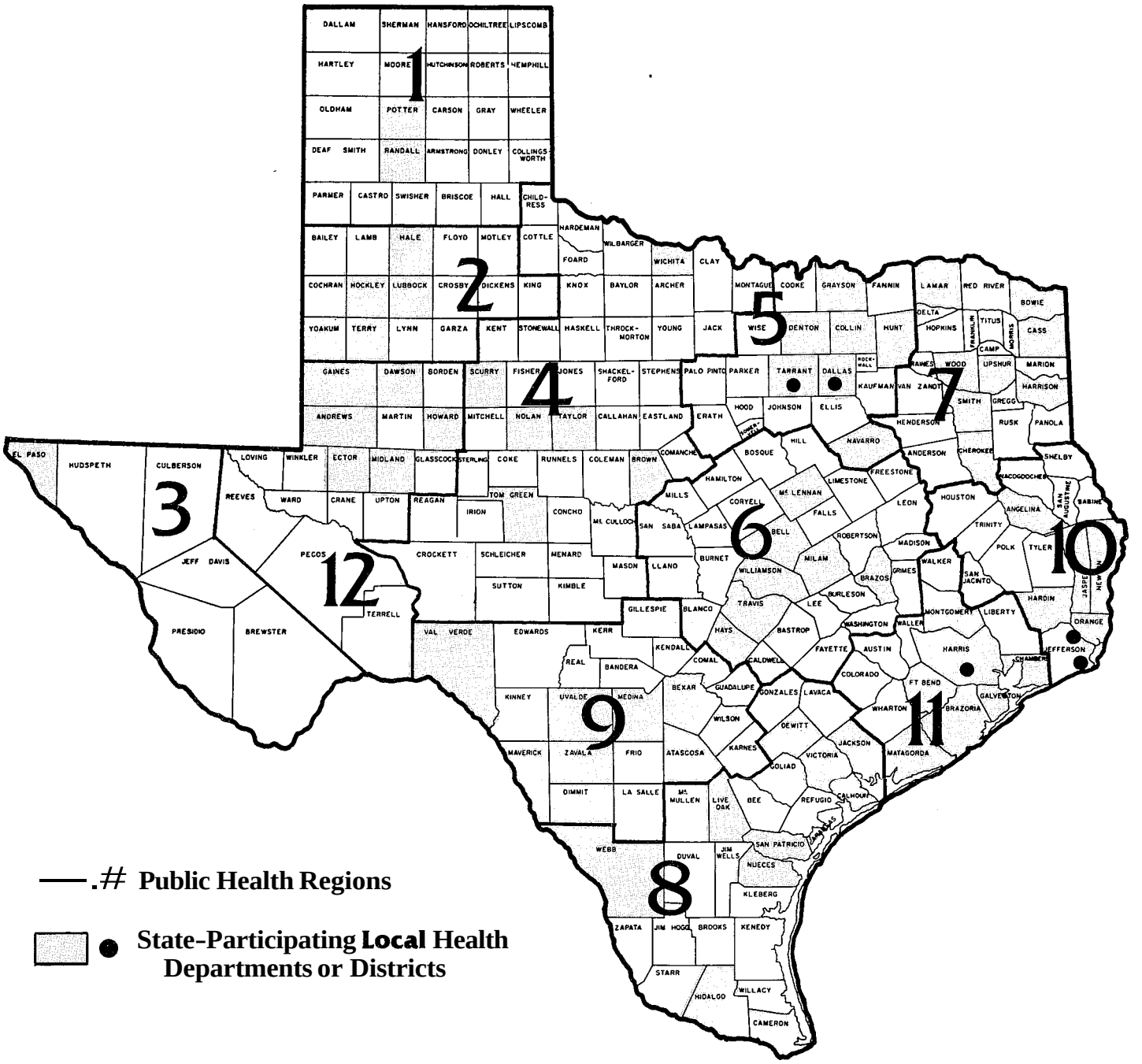
TABLE VI

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY PUBLIC HEALTH REGION, TEXAS, 1982

DISEASE	TOTAL	1	2	3	4	5	6	7	8	9	10	11	12	MILITARY [1]
*******	*****	*	*	*				*	*	*	**	**	**	********
AMEBIASIS	493	16	9	18	6	30	195	1	137	8	2	69	1	1
ASEPTIC MENINGITIS	785	39	21	6	17	279	22	9	19	117	10	223	9	14
BRUCELLOSIS	27	0	0	2	0	2	3	5	6	5	3	1	0	0
CHICKENPOX	11050	679	186	735	1388	1072	1439	1012	1531	593	311	1221	804	79
ENCEPHALITIS, INFECTIOUS VIRAL [2]	157	9	16	7	9	33	10	8	9	27	12	11	5	1
GONORRHEA	84045	1587	1397	2712	1519	23587	6320	2904	2396	4411	3451	30262	1034	2465
HANSEN S DISEASE	29	1	0	0	0	8	0	0	12	0	1	7	0	0
HEPATITIS, TYPE A	3226	38	77	212	217	1372	191	46	277	279	56	355	87	19
HEPATITIS, TYPE B	1043	20	15	88	28	314	85	21	105	41	34	244	15	33
HEPATITIS, TYPE UNSPECIFIED	2071	35	72	35	123	505	194	89	231	43	34	544	112	54
INFLUENZA & FLU-LIKE ILLNESS	93736	6567	4415	79	11707	4376	21566	4772	19347	6587	862	4518	1885	7055
LEPTOSPIROSIS	18	0	0	0	2	0	1	0	1	5	1	8	0	0
MEASLES	129	0	0	0	1	5	119	0	1	0	1	1	1	0
MENINGOCOCCAL INFECTIONS	238	3	2	9	6	68	28	13	16	11	11	67	3	1
MUMPS	255	8	8	20	10	39	15	8	47	18	12	67	3	0
PERTUSSIS	79	2	2	0	0	40	8	2	2	12	2	9	0	0
PLAGUE	1	0	1	0	0	0	0	0	0	0	0	0	0	0
PSITTACOSIS	8	0	0	0	0	1	3	1	2	1	0	0	0	0
Q FEVER	1	0	0	0	0	0	0	0	1	0	0	0	0	0
RELAPSING FEVER	4	0	0	0	0	0	1	0	0	2	0	1	0	0
RHEUMATIC FEVER. ACUTE	12	0	0	0	2	1	0	2	2	4	1	0	0	0
ROCKY MOUNTAIN SPOTTED FEVER	64	2	1	0	4	21	5	14	3	4	5	5	0	0
RUBELLA	120	6	6	7	3	14	11	10	33	8	4	11	5	2
SALMONELLOSIS	2506	42	79	100	42	447	193	114	303	227	87	838	16	18
SHIGELLOSIS	2173	53	51	99	21	390	140	44	333	252	31	736	18	5
ST. LOUIS ENCEPHALITIS	18	0	0	0	0	0	0	0	3	0	7	8	0	0
STREP THROAT, SCARLET FEVER	47473	1900	4778	189	6509	6177	4857	2967	9166	4288	622	893	2464	2663
SYPHILIS, PRIMARY & SECONDARY	6464	27	77	140	33	1801	503	319	183	335	227	2579	114	126
TETANUS	8	0	0	0	0	0	1	0	4	1	2	0	0	0
TRICHINOSIS	2	0	0	0	0	2	0	0	0	0	0	0	0	0
TUBERCULOSIS	2045	17	14	83	47	376	127	81	218	196	57	800	29	0
TULAREMIA	16	1	0	0	0	0	1	11	2	0	0	1	0	0
TYPHOID FEVER	42	0	1	1	1	4	5	1	6	2	0	21	0	0
TYPHUS FEVER. ENDEMIC	41	1	0	0	5	1		3	24	1	1	3	0	0
WESTERN EQUINE ENCEPHALITIS	4	1	3	0	0	0		0	0	0	0	0	0	0

1. Includes military installations' and VA hospitals
2. Exclusive of arboviral encephalitides

Texas Department of Health
Public Health Regions
and
State-Participating Local Health Departments



PUBLIC HEALTH REGIONS

PUBLIC HEALTH REGION 1
Henry C. Moritz, M.D., M.P.H.
Regional Director Public Health
Texas Department of Health
P.O. Box 968, WTSU Station
Canyon, Texas 79016
(Location: Old Health Center Bldg.
300 Victory Drive)
806/655-7157
Tex-An 844-2801

PUBLIC HEALTH REGION 2112
C. R. Allen, Jr., M.D., M.P.H.
Regional Director Public Health
Texas Department of Health
4709 66th Street
Lubbock, Texas 79414
8061797-4331
Tex-Ann 842-5280

PUBLIC HEALTH REGION 3
John R. Bradley, M.D.
Regional Director Public Health
Texas Department of Health
P.O. Box 10736
El Paso, Texas 79997
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9151533-4972
Tex-An 846-8127

PUBLIC WEALTH REGION 4
Myron J. Woltjen, M.D., M.P.H.
Regional Director Public Health
Texas Department of Health
P.O. Box 2648
Abilene, Texas 79602
(Location: 301 Oak Street, 2nd Floor
Old Courthouse).
915/673-5231
Tex-An 847-7011

PUBLIC HEALTH REGION 5
Hal J. Dewlett, M.D., M.P.H.
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Texas Department of Health
P.O. Box 6229
Arlington, Texas 76011
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8171460-3032
Tex-An 833-9011

PUBLIC HEALTH REGION 6
Chas. R. Webb, Jr., M.D.
Regional Director Public Health
Texas Department of Health
P.O. Box 190
Temple, Texas 76503
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8171778-6744
Tex-Ann 820-2201

PUBLIC HEALTH REGION 7/10
Marietta Crowder, M.D.
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2141595-3585
Tex-An 830-6011

PUBLIC HEALTH REGION 8
Charles B. Marshall, Jr., M.D., M.P.H.
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1401 S. Rangerville Road
Harlingen, Texas 78550
5121423-0130
Tex-An 820-4501

PUBLIC HEALTH REGION 9
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Texas Department of Health
P.O. Drawer 630
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Tex-An 820-4411

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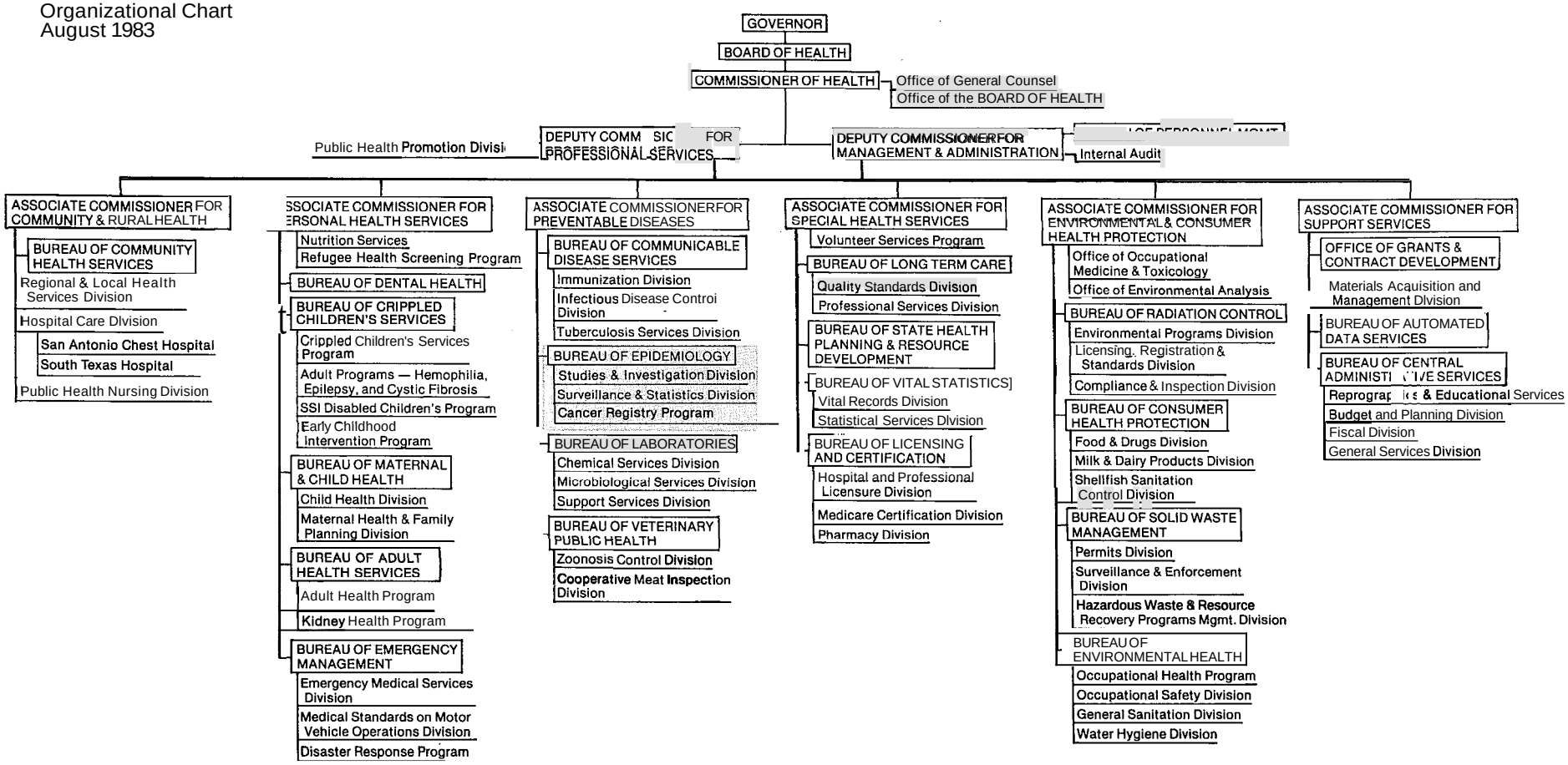
Tex-An 851-3000

TEXAS DEPARTMENT OF HEALTH

Organizational Chart
August 1983



NOTIFIABLE DISEASE REPORT FOR WEEK ENDING_____

Leave This Space Blank	Disease	Patient (Last, First, Middle Initial)	Age*	Sex	Race†
		Name Address City			
		Name Address City			
		Name Address City			
		Name Address City			
		Name Address City			
		Name Address City			
		Name Address City			
		Name Address City			
		Name Address City			
		Name Address City			
		Name Address City			

*REPORT AGE AT LAST BIRTHDAY. IF LESS THAN 1 YR. REPORT BY MONTH.

†ENTER CODE AS APPROPRIATE

WHITE	1
HISPANIC	
BLACK	
AMERICAN INDIAN or ALASKAN NATIVE	4
ASIAN or PACIFIC ISLANDER	5
UNKNOWN	9

CHECK FOR ADDITIONAL SUPPLIES

☐ J-27 (VD REPORTING)
☐ TB-15 (TB REPORTING)

REPORT BY NUMBER OF CASES PER AGE GROUP:

		<1 yr.	1-4	5-9	10-14	15+	Unk.
052	CHICKENPOX						

REPORT BY NUMBER OF CASES:

487—Influenza & flu-like illness _____
034—Streptococcal sore throat _____
034—Scarlet fever _____

FORM C-15 (REV 4-83)

TEXAS DEPARTMENT OF HEALTH
BUREAU OF EPIDEMIOLOGY
1100 WEST 49th STREET
AUSTIN, TEXAS 78756-9990

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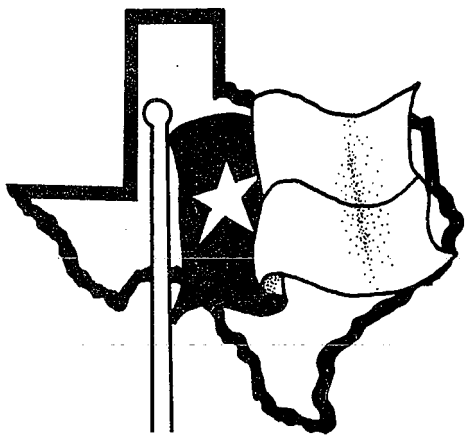

REPORTABLE DISEASES OF TEXAS 1983

In Texas, specific rules and regulations for the control of communicable diseases have been approved by the State Board of Health under the legal authority vested in them by Articles 4418a, 4419, and 4477 of the Texas Revised Civil Statutes. These include the designation of certain diseases as "reportable" as well as the establishment of the mechanics for reporting communicable diseases, control measures, and the use of quarantine procedures. The following diseases are reportable in Texas:

Diseases to be Reported Immediately by Telephone to the Texas Department of Health

- Botulism
- Cholera
- Diphtheria
- Plague
- Poliomyelitis, paralytic
- Smallpox
- Yellow fever

Diseases Reportable by Name, Address, Age, Sex, and Race/Ethnicity

- Acquired Immune Deficiency Syndrome
- Amebiasis
- Anthrax
- Aseptic meningitis
- Botulism
- Brucellosis
- Cholera
- Diphtheria
- Encephalitis (specify etiology)
- Hansen's disease (leprosy)
- Hepatitis, viral
  - Type A
  - Type B
  - unspecified
- Leptospirosis
- Malaria
- Measles
- Meningococcal infections
- Mumps
- Pertussis
- Plague
- Poliomyelitis, paralytic
- Psittacosis
- Q fever
- Rabies in man
- Relapsing fever
- Reye Syndrome
- Rheumatic fever, acute
- Rocky Mountain spotted fever
- Rubella
- Rubella congenital syndrome
- Salmonellosis
- Shigellosis
- Smallpox
- Tetanus
- Trichinosis
- Tularemia
- Typhoid fever
- Typhus fever,
  - endemic (murine)
  - epidemic
- Yellow fever

Diseases Reportable by Numerical Totals

- Chickenpox
- Influenza and flu-like illness
- Streptococcal sore throat (including scarlet fever)

In addition to the requirements of individual case reports, any unusual or group expression of illness which may be of public health concern should be reported to the local health authorities or the State Epidemiologist by the most expeditious means (AC 512-458-7281 or Tex-An 824-9218), Epidemiologic investigative consultation and assistance are available from the Texas Department of Health upon request.

If no cases occurred during the week, write "NONE" across the card. Upon completing your report, fold the top flap over the bottom flap and seal and return. Your cooperation in securing these reports promptly is greatly appreciated.

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