Louisiana

DEPARTMENT OF HEALTH AND HUMAN RESOURCES
OFFICE OF HEALTH SERVICES AND ENVIRONMENTAL QUALITY
BOX 60630 NEW ORLEANS, LOUISIANA 70160

MONTHLY MORBIDITY REPORT

Provisional Statistics

from

EPIDEMIOLOGY UNIT AND PUBLIC HEALTH STATISTICS

REPORTED MORBIDITY
FEBRUARY, 1981

DIABETES MELLITUS

The cause of diabetes is uncertain. It is characterized by chronic hyperglycemia and other disturbances of carbohydrate and lipid metabolism and is associated with the development of vascular complications. End-organ damage (occular, renal) may occur or the disease may be associated with accelerated atherosclerosis.

In young persons, the onset is often abrupt and associated with classic signs and symptoms (eg. thirst, hunger, excessive urination, weight loss). In these persons' insulin therapy is usually required. In many older persons, however, diabetes is asymptomatic. Most of these persons do not require insulin therapy and seldom develop ketoacidosis. Both groups have the propensity to develop vascular complications.

Diabetes mellitus is a major public health problem in the United States. Approximately five million Americans are known to have diabetes and it is estimated an equal number are undiagnosed or will develop diabetes. It is the sixth leading cause of death and is reported as the underlying cause for over 37,000 deaths annually. This figure is considered an underestimate because many persons with diabetes die as a result of the vascular complications. Diabetes is estimated to be a contributory factor in the deaths of another 70,000 persons each year.

Based on the latest available data, it is estimated there are over 70,000 cases of diabetes in Louisiana and 10,000 new cases are occuring each year. Thus, the annual incidence rate is 252 new cases per 100,000 state residents. The age adjusted mortality rate is estimated to be 21.4 per 100,000, the highest in the nation. In the south-central areas of the United States, except for Louisiana, the mortality rate ranges from 11.9 to 16.3 per 100,000. In 1978, over six percent of the deaths in Louisiana had diabetes mentioned on the death certificate.

The National Commission on Diabetes in its report to Congress in 1975 noted that the disease affects approximately 10 million Americans and cost over 300,000 lives and $6 billion annually. A major recommendation of the commission was the establishment of community-based diabetes control demonstration projects. The commission envisioned that the Centers for Disease Control (CDC) in partnership with the states would apply existing knowledge about diabetes and traditional public health disease control techniques to improve the quality, accessibility, and effectiveness of diabetes care at the community level.

Since 1977 Congress has appropriated resources to support this program. Louisiana is now one of 20 states that have entered into a co-operative agreement with CDC to create a state-based diabetes control program. Primary emphasis will be to take stock of the problems and needs that exist in terms of data, care resources, and services. These indicators, along with expert medical knowledge about the management of the disease, will be used to develop community plans.

The formation of the Louisiana State Diabetes Advisory Council in April, 1980 was the crucial first step in creating a framework for securing the participation, involvement, and support of various individuals and groups interested and competent in areas pertinent to the control of diabetes. In addition to providing guidance and direction to the project, the council will act as catalyst between the project and the community at large.

The project is presently in "phase I" of it's existance. A core staff has recently been hired. It's primary goal will be to assess the situation in Louisiana and develop a program which can be evaluated. The project staff is presently involved in an indepth analysis of diabetes in Louisiana. It will assess resources in terms of care, education, service, and data. The purpose of such an inventory is to identify the resources available and the remaining gaps in these resources. In doing this, the project will make itself known to the diabetes community and begin to identify problem areas.

At the onset, the Diabetes Program will concentrate its efforts in 24 south Louisiana parishes (Mid Louisiana Health Systems Agency). It is thought that such a "demonstration project" in one area will document the value of its interventions and work out programatic difficulties before state wide implementation is undertaken.

The design and implementation of specific inter-

ventions is the goal of "phase II". The interventions will be designed specifically to address problems that have become well defined in terms of data, needs, resources, and expected outcome. The objectives of the interventions will be specific, realistic, and obtainable. In addition, evaluation criteria will be built into these interventions so that progress and achievements can be demonstrated objectively. "Phase II" activities are not expected to be initiated prior to 1982.

At the last meeting of the Advisory Council on February 24, 1981, the Council unaniously recommended that the following classification system be adopted and disseminated throughout the state.

AN OUTLINE OF THE CLASSIFICATION

I. Diabetes Mellitus (DM)

- A. Type I, Insulin-dependent
- B. Type II, Noninsulin-dependent
  1. Nonobese NIDDM
  2. Obese NIDDM
- C. Other types, including DM associated with certain conditions and syndromes
  1. Pancreatic disease
  2. Hormonal
  3. Drug or chemical induced
  4. Insulin receptor abnormalities
  5. Certain genetic syndromes
  6. Other types (i.e. malnourished populations)

II. Impaired Glucose Tollerance (IGT)

- A. Nonobese IGT
- B. Obese IGT
- C. IGT associated with conditions and syndromes that parallel the conditions and syndromes associated with DM.

III. Gestational Diabetes (GDM)

IV. Statistical Risk Classes

- A. Previous Abnormality of Glucose Tolerance (PrevAGT)
- B. Potential Abnormality of Glucose Tolerance (PotAGT)

Notes on Classification

To facilitate use of the above classification system it is essential that the classification system(1) serve as a framework to collect epidemiologic data on the etiology, natural history and impact of diabetes and its complications and (2) aid in categorizing patients who have various degrees of glucose intollerance or who possess characteristics that place them at increased risk of developing DM.

The terminology and classification system outlined above (1) is designed so that an individual at any given time can be placed in only one class, (2) requires only simple clinical measurements or descriptive observations that are readily obtainable and have biologic significance, (3) is as precise and well defined as current knowledge allows, (4) describes the physical makeup of the abnormality and (5) will allow for the incorporation of new research findings.

The classifications outlined above are defined as follows:

I. Diabetes Mellitus – DM

- A. In adults, the term is restricted to those persons who have one or more of the following:
  1. Overt symptoms and unequivocal hyperglycemia
  2. Fasting plasma glucose levels higher than 140 mg/dl on more than one occasion
  3. Plasma glucose levels during the Oral Glucose Tolerance Test (OGTT) that exceed 200 mg/dl both at two hours after admission of the glucose dose and at some other point between the admission and the two hour measurement.
- B. In children, the term is restricted to those persons who have one or both of the following:
  1. Classic symptoms and a random plasma glucose in excess of 200 mg/dl.
  2. When there is clear indication to do an Oral Glucose Tolerance Test, there must be an elevated fasting plasma glucose ($\geqslant$ 200 mg/dl) during the test, both ascertained on more than one occasion.

I.A. IDDM: Persons in this classification are dependent on injected insulin to prevent ketosis and to preserve life, although there may be preketotic, noninsulin-dependent phases in the natural history of the disease. Usually onset is in youth but IDDM may occur at any age and is characterized by a lack of insulin.

I.B. NIDDM: Persons in this classification are neither insulin dependent nor ketosis prone, although they may use insulin and can

develope ketosis under special (stress) circumstances. Serum insulin levels may be normal, elevated, or depressed. Usually, onset is after 40, but NIDDM can onset at any age. About 60–90% of NIDDM are obese (defined below). Hyperinsulinemia (excessive insulin in the blood) and insulin resistance characterize some patients in this classification.

I.C. DM associated with certain conditions and syndromes: Persons in this classification have both a specific condition or syndrome and DM.

II. IGT: persons in this classification have non-diagnostic fasting glucose intolerance of a degree between diabetic and normal. Two additional criteria must be met for adults: (1) fasting plasma glucose must be less than 140 mg/dl; (2) during the OGTT the two hour measurement must be between 140 mg/dl and 200 mg/dl. For children two criteria must be met: (1) fasting plasma glucose must be less than 140 mg/dl and (2) the level of plasma glucose at the two-hour OGTT must exceed 140 mg/dl.

III. GDM: Persons in this classification have glucose intolerance that has its onset or recognition during pregnancy. Two or more of the following criteria must be met or exceeded in the OGTT: (1) fasting plasma glucose of 105 mg/dl, (2) 1-hour plasma glucose of 140 mg/dl, (3) 2-hour plasma glucose of 165 mg/dl, and (4) a 3-hour plasma glucose of 145 mg/dl.

IV.A. PrevAGT: Persons in this classification now have normal glucose tolerance, but who have previously demonstrated diabetic hyperglycemia or IGT either spontaneously or in response to an identifiable stimulus.

IV.B. PotAGT: Persons in this classification have neverexhibited abnormal glucose tolerance, but are at substantially increased risk for the development of DM.

NOTE: Obese is defined in this classification scheme as a standard body mass index (BMI) in excess of 25 for men and 27 for women.

ORAL GLUCOSE TOLERANCE TEST (OGTT)

Since much of the proposed classification system depends on interpreting the OGTT, it is necessary to define the test universally. It is also desirable that the medical community in Louisiana use a testing procedure that allows comparisons with other medical communities. In brief, the National Diabetes Data Group recommends the following:

1. Administer the OGTT in the morning after at least three days of unrestricted diet and physical activity.
2. The subject should have fasted for at least 10 hours but no longer than 16.
3. Collect a fasting blood.
4. Administer the glucose dose in a concentration no greater 25g/dl and have the subject consume it in 5 minutes or less.
5. The dose should be 75g for non-pregnant adults, 1.75g/kg of ideal body weight for children, or 100g for pregnant subjects.
6. Zero time is at the beginning of the drink.
7. For non-pregnant subjects collect blood samples at 30 minute intervals for two hours. For pregnant subjects, collect samples at one-hour intervals for three hours.

If the terminology described above is adopted, many words commonly used today without precise definition will fade into obscureness. Examples of these words are:

juvenile-diabetes
juvenile-onset diabetes
juvenile-onset type diabetes
ketosis-prone diabetes
brittle diabetes
adult-onset diabetes
maturity-onset diabetes
maturity-onset-type diabetes
ketosis-resistant diabetes
stable diabetes
secondary diabetes
asymptomatic disease
chemical diabetes
subclinical diabetes
borderline diabetes
latent diabetes
prediabetes
potential diabetes

Contributed by:
Diabetes Control Unit, Chronic Disease Control Section.
Division of Personal Health.

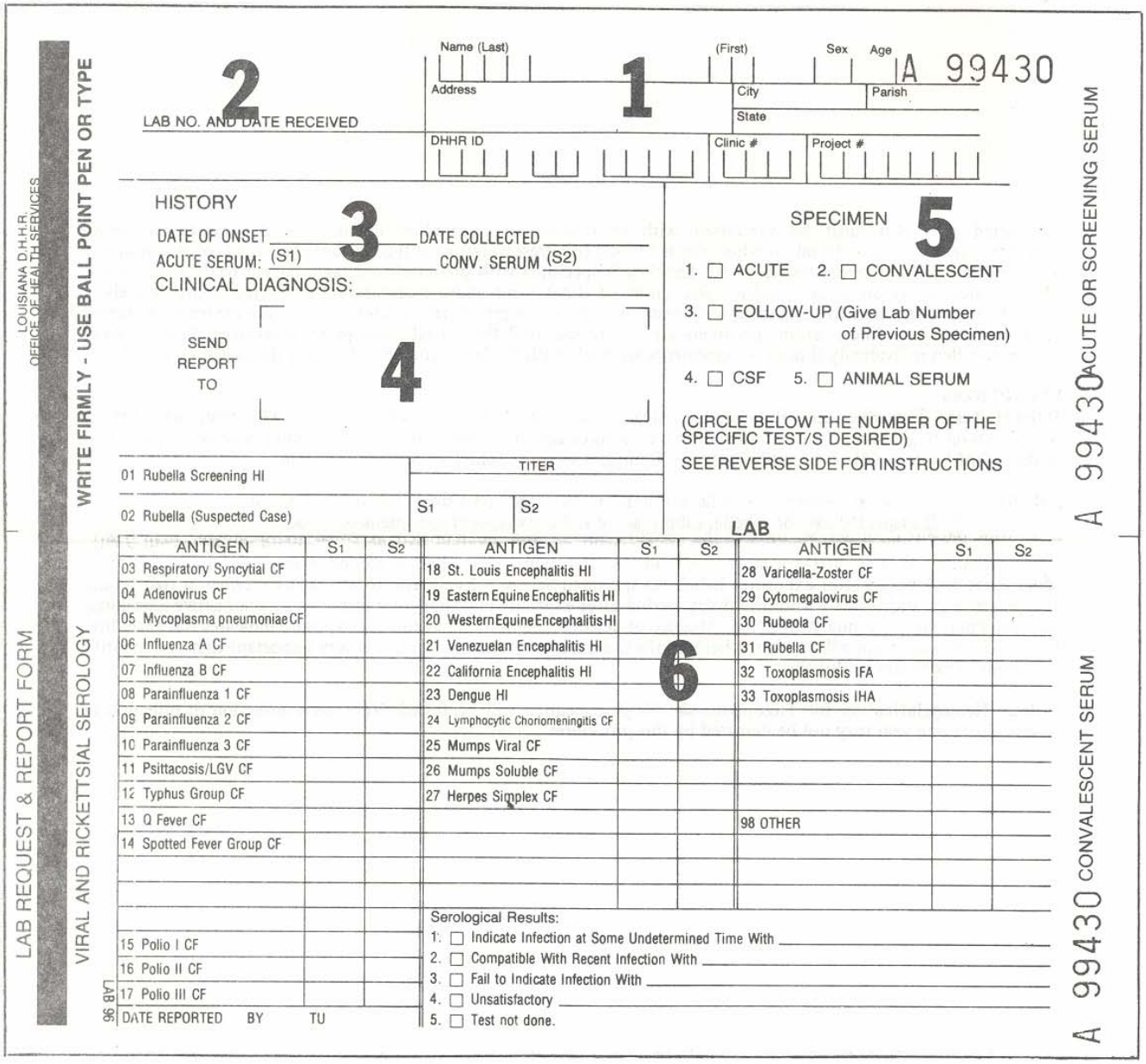
NEW FORM FOR SEROLOGY

A new laboratory request and report form is available for viral and rickettsial serology (LAB 96). It is to be used to request viral and rickettsial serologies instead of the old general request form (LAB 2). LAB 96 will provide a means for Parish health units, hospitals, clinics, physicians, etc. to request specific tests (viral and rickettsial) to be performed on a patient by the State laboratory. The form will also be used to provide statistical information for epidemiological purposes. Additionally, the same form will be used by the laboratory to return results of the test(s) to the provider. New LAB 96 is printed on no carbon required paper and is a snap-stub, three part form. The three copies are printed in contrasting colors. Each copy carries the same serial number in the upper right hand corner and on two adhesive-backed tear off labels attached to the right hand side of the form. These tear off labels are to be affixed to the corresponding specimen(s). They are labeled acute or screening serum and convalescent serum. The form is to be prepared by the facility securing the specimen at the time of collection. All copies (3) of the form are to be submitted to the laboratory with the specimen, but not"wrapped around" the specimen(s).

Figure **1** is an illustration of the new form; instructions for completing each secion (numbered for reference) follow. **Section 1** of the form is used to provide patient information. Include the patient's complete address, parish and city. The patient's DHHR I.D.number, clinic number and project number are to be used by the Office of Health Services and Environmental Quality. **Section 2** is for the use of the laboratory only. **Section 3** is the portion of the form used to provide patient history. The date on which symptoms of the disease first occurred is entered in the blank next to "DATE OF ONSET". Enter the date the specimen was collected if only a single specimen is required, i.e. rubella screening. If both an acute and convalescent sera were collected, enter the dates in the respective blanks. Enter the clinical diagnosis (known or suspected) in the blank provided. **PLEASE NOTE: IN THE CASE OF A PRENATAL SAMPLE FOR RUBELLA SCREENING WRITE "PRENATAL" IN THE CLINICAL DIAGNOSIS BLANK". Section 4** is the "SEND REPORT TO" box. It is necessary to enter the complete name and address of the person and place to whom the report should be sent. Only one copy of the report will be sent. **PLEASE NOTE: IF THE SENDER IS USING A HAND STAMP TO FILL-IN THE "SEND REPORT TO" BOX, IT IS NECESSARY TO STAMP ALL 3 COPIES SEPARATELY. PLEASE CHECK TO SEE THAT ALL THE BOXES ARE LEGIBLE IN ORDER TO AVOID DELAYED REPORTING. Section 5** is used to provide specimen identification. If the specimen is a follow-up please give the laboratory number of the previous specimen. In the laboratory report, **Section 6,** circle the number of the specific test(s) desired; the reverse side of copy 3 of the form provides instructions (Figure 2). The laboratory results will be written in the proper box for reporting. If antibodies are not detected (negative) a report of the reciprocal of the minimal dilution of the sera will be entered (i.e. $< 1:8$, $< 1:10$, etc.). Thus, the titer would be less than 1:8 or 1:10. If antibodies are detected a report of the reciprocal of the maximum dilution of the sera producing a positive result will be given (i.e. 1:64, 1:128, etc.). Thus, the titer would be 1:64 or 1:128. For rubella screening, the highest titers will be reported as equal to or greater than 1:40 ($\geqslant 1:40$). A positive test (an indication of a recent infection) generally is accepted as at least a four fold rise in antibody titer between the acute and convalescent sera.

The laboratory will send reports of the result(s) of test(s) as follows: (a) the **white** copy will be retained by the laboratory as a file copy; (b) the **pink** copy will be sent to data processing; and (c) the **yellow** copy will be returned to the address in the "send report to" box. The new request and report form (LAB 96) for viral and rickettsial serology is available through your local Parish health unit and must be used for all viral and rickettsial serology requests.

Figure 1



LOUISIANA D.H.H.R.
OFFICE OF HEALTH SERVICES

WRITE FIRMLY - USE BALL POINT PEN OR TYPE

LAB REQUEST & REPORT FORM

VIRAL AND RICKETTSIAL SEROLOGY

A 99430 ACUTE OR SCREENING SERUM

A 99430 CONVALESCENT SERUM

A 99430

Name (Last) (First) Sex Age

Address City Parish

State

DHHR ID Clinic # Project #

2 LAB NO. AND DATE RECEIVED

1

HISTORY

3

DATE OF ONSET DATE COLLECTED

ACUTE SERUM: (S1) CONV. SERUM (S2)

CLINICAL DIAGNOSIS:

SEND REPORT TO

4

SPECIMEN

5

1. ☐ ACUTE 2. ☐ CONVALESCENT

3. ☐ FOLLOW-UP (Give Lab Number of Previous Specimen)

4. ☐ CSF 5. ☐ ANIMAL SERUM

(CIRCLE BELOW THE NUMBER OF THE SPECIFIC TEST/S DESIRED)

SEE REVERSE SIDE FOR INSTRUCTIONS

	TITER	
01 Rubella Screening HI		
02 Rubella (Suspected Case)	S1	S2

LAB

6

ANTIGEN	S1	S2	ANTIGEN	S1	S2	ANTIGEN	S1	S2
03 Respiratory Syncytial CF			18 St. Louis Encephalitis HI			28 Varicella-Zoster CF		
04 Adenovirus CF			19 Eastern Equine Encephalitis HI			29 Cytomegalovirus CF		
05 Mycoplasma pneumoniae CF			20 Western Equine Encephalitis HI			30 Rubeola CF		
06 Influenza A CF			21 Venezuelan Encephalitis HI			31 Rubella CF		
07 Influenza B CF			22 California Encephalitis HI			32 Toxoplasmosis IFA		
08 Parainfluenza 1 CF			23 Dengue HI			33 Toxoplasmosis IHA		
09 Parainfluenza 2 CF			24 Lymphocytic Choriomeningitis CF					
10 Parainfluenza 3 CF			25 Mumps Viral CF					
11 Psittacosis/LGV CF			26 Mumps Soluble CF					
12 Typhus Group CF			27 Herpes Simplex CF					
13 Q Fever CF						98 OTHER		
14 Spotted Fever Group CF								
15 Polio I CF			Serological Results:					
16 Polio II CF			1. ☐ Indicate Infection at Some Undetermined Time With					
17 Polio III CF			2. ☐ Compatible With Recent Infection With					
DATE REPORTED BY TU			3. ☐ Fail to Indicate Infection With					
			4. ☐ Unsatisfactory					
			5. ☐ Test not done.					

LAB 96

Figure 2

Completed data slip must be submitted with each specimen or paired specimens of blood. Viral tests requested should be clearly circled. 10 ml. of whole clotted blood (no preservative or anti-coagulant) or 3-4 ml. of serum should be submitted. Do not freeze whole blood. Label each specimen with pre-numbered tag attached to data slip. Acute serum (collected as soon as possible after onset of illness) and convalescent serum (collected approximately 2 weeks later) are required for diagnostic viral tests. A four-fold or greater rise in titer is considered evidence of current or recent infection. Single serum specimens are not tested until the convalescent serum is received. Problem cases may be handled individually if prior arrangements are made with the laboratory. Single spinal fluids will be tested.

EXCEPTIONS

TORCH Test: Toxoplasmosis, Rubella, Cytomegalovirus and Herpes simplex associated with congenital defects will be run on single serum from infants under 6 months of age. A sample of the mother's blood must accompany that of the infant for comparison of antibody levels. Complete separate forms for mother and child.

Rubella: 1) Routine screening for rubella immunity is performed on a single specimen of blood.
2) If suspected case of rubella, submit acute and convalescent specimens of blood.
3) To determine immune status of pregnant women exposed to Rubella collect a serum within 5 days after exposure, If the first specimen contains no detectable antibodies, a second serum should be collected approximately 2 weeks after exposure. Label this specimen Serum // 2 and refer to laboratory number of first serum. The presence of antibodies within the 5 day period after exposure indicates prior infection or prior active immunization and immunity to primary infection. Absence of detectable antibodies at time of exposure indicates susceptibility. Testing of second serum will confirm whether infection resulted from exposure. It is very important that you identify specimens as exposure to Rubella.

Indirect Hemagglutination for Toxoplasmosis: Single specimen will be tested. Very early infection or infection in infants under one year may not be detected by this procedure.

SELECTED REPORTABLE DISEASES
(By Place of Residence)

STATE AND PARISH TOTALS REPORTED MORBIDITY FEBRUARY, 1981	VACCINE PREVENTABLE DISEASES					ASEPTIC MENINGITIS	HEPATITIS A AND UNSPECIFIED	HEPATITIS B	LEGIONNAIRES DISEASE	MALARIA**	MENINGOCOCCAL INFECTIONS	SHIGELLOSIS	TUBERCULOSIS, PULMONARY	TYPHOID FEVER	OTHER SALMONELLOSIS	UNDERNUTRITION SEVERE	GONORRHEA	SYPHILIS, PRIMARY AND SECONDARY	RABIES IN ANIMALS (PARISH TOTALS CUMULATIVE, 1981)
	MEASLES	RUBELLA*	MUMPS	PERTUSSIS	TETANUS														
TOTAL TO DATE 19 80	3	2	9	1	0	11	135	30	0	14	18	40	64	0	14	1	3312	199	3
TOTAL TO DATE 19 81	0	2	3	1	0	4	99	52	0	1	36	11	64	0	26	1	3249	240	8
TOTAL THIS MONTH	0	2	3	1	0	2	68	40	0	0	34	10	43	0	20	1	1609	133	3
ACADIA							1	1			1	1	1		1		18		
ALLEN													1				2		
ASCENSION											1		1				5	3	
ASSUMPTION																	1	1	
AVOYELLES								1									12		
BEAUREGARD																	3		
BIENVILLE																	1		2
BOSSIER							1	2			1		1				21	1	1
CADDO							2	6			1	3			11		121		1
CALCASIEU							2	3			1		2				60	2	
CALDWELL																	5		
CAMERON											1								
CATAHOULA																	3		
CLAIBORNE																	9		
CONCORDIA																	3		
DESOTO																	4		
EAST BATON ROUGE			2				2				1						152	20	
EAST CARROLL																	7	3	
EAST FELICIANA								1										3	
EVANGELINE							2						1				1		
FRANKLIN													1				1		
GRANT																			
IBERIA													1				9	1	
IBERVILLE																	8	2	
JACKSON																	1		
JEFFERSON							13	6			2	3	3		1		101	12	
JEFFERSON DAVIS								1									12	1	
LAFAYETTE				1				7			8		3				35		
LAFOURCHE											1				1		29		
LASALLE																			
LINCOLN							10				1						16		
LIVINGSTON			1				1				1						3	1	
MADISON							1										7	1	
MOREHOUSE											1						14	2	
NATCHITOCHES											1	1					2		3
ORLEANS		1					5	10			4		16		3		644	53	
OUACHITA							9				1						47	4	
PLAQUEMINES							1	1									7		
POINTE COUPEE																			
RAPIDES																	57	3	
RED RIVER																			
RICHLAND													2						
SABINE													1				1		
ST. BERNARD											3		1				8		
ST. CHARLES																	4		
ST. HELENA																	2		
ST. JAMES																	9		
ST. JOHN											1		1				5		
ST. LANDRY							2						2				8	2	
ST. MARTIN							3										4		
ST. MARY																	3		
ST. TAMMANY		1					3	1					3		1		15	1	
TANGIPAHOA															1		25	3	
TENSAS																			
TERREBONNE						2	6				2	1			1		41	1	
UNION							1										2		
VERMILION											1		1				6		
VERNON							2										5	1	
WASHINGTON							1						1				2	2	
WEBSTER																1	17	1	1
WEST BATON ROUGE																	6	2	
WEST CARROLL																	1		
WEST FELICIANA																		3	
WINN																	6		
OUT OF STATE												1					18	4	

* Includes Rubella, Congenital Syndrome.
** Acquired outside United States unless otherwise stated.

From January 1, 1981 through February 28, 1981, the following cases were also reported: 1-Reyes Syndrome; 1-Leptospirosis.

Department of Health and Human Resources
Office of Health Services and Environmental Quality
P.O. Box 60630, New Orleans, La. 70160

This public document was published at a cost of $.30 per copy by the Office of Health Services and Environmental Quality to inform Physicians, Hospitals, and the Public of current Louisiana morbidity status under authority of R.S. 40:36. This material was printed in accordance with the standards for printing by state agencies established pursuant to R.S. 43:31.