

LOUISIANA MONTHLY MORBIDITY LHSASA

DISEASES REPORTED DURING THE MONTH OF

OCTOBER, 1973

BY PARISH OF RESIDENCE

THE LOUISIANA NUTRITION SURVEILLANCE PROGRAM A PRELIMINARY REPORT

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The Health and Social and Rehabilitation Services Administration, Division of Health Maintenance and Ambulatory Patient Services, Nutrition Section, has been involved in methods of identifying nutritional problems within the

the state for many years. The Ten-State Nutrition Survey in 1968 - 69 demonstrated facts already known by this section's staff members - malnutrition does exist and in epidemic proportions.

BUREAU OF VITAL STATISTICS

DIVISION OF HEALTH MAINTENANCE AND AMBULATORY PATIENT SERVICES

Prepared by:

DIVISION
OF TABULATION &
ANALYSIS

	ASEPTIC MENINGITIS	DIPHThERIA	ENCEPHALITIS	ENCEPHALITIS, POST INFECTIONOUS	INFECTIOUS AND SERUM HEPATITIS	TUBERCULOSIS, PULMONARY	MENTINGOCOCCAL INFECTIONS	PERTUSSIS	POLIOMYELITIS, PARALYTIC	RABIES IN ANIMALS	RHEUMATIC FEVER	RUBELLA *	SHIGELLOSIS	TYPHOID FEVER	OTHER SALMONELLOSIS	TETANUS	MEASLES	GONORRHEA	SYPHILIS, PRIMARY AND SECONDARY
TOTAL TO DATE 1972	82	5	13	9	625	509	41	41	0	41	11	95	156	7	182	5	98	14532	743
TOTAL TO DATE 1973	99	1	16	4	756	425	47	12	0	43	23	100	211	6	215	4	87	19658	707
TOTAL THIS MONTH	6	1	3	0	103	18	8	0	0	5	3	1	11	0	46	1	3	2244	66
ACADIA					1	1													10
ALLEN						1													2
ASCENSION					1														5
ASSUMPTION					1														11
AVOUELLES																			10
BEAUREGARD																	2		9
BIENVILLE																			4
BOSSIER					1					1									22
CADDO					5	2													205
CALCASIEU					1	1									2				84
CALDWELL																			4
CAMERON																			
CATAHOULA																			7
CLAIBORNE					2														
CONCORDIA					1														11
DESOTO																			13
EAST BATON ROUGE			2		2						1	1			5		1		141
EAST CARROLL					2														9
EAST FELICIANA															1				
EVANGELINE					1														8
FRANKLIN						1													12
GRANT																			3
IBERIA																			3
IBERVILLE																			5
																			8

*Includes Rubella, Congenital Syndrome.

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The state and federal nutrition programs combined their expertise to explore possible ways of correcting the problems identified in The Ten-State Survey. Before means of assisting those people affected could be implemented, methods of identifying the population geographically needed to be devised and tested. Proving an area has a nutrition problem is much easier than finding exactly where that problem is most severe or in what population corrective attention needs to be focused.

Prior to 1973, no state had an ongoing method of identifying nutritional problems geographically. Louisiana has now developed an ongoing surveillance system. The graphs displayed in this article represent selected indices of the nutritional status of the population selected for surveillance. Efforts of health personnel in Louisiana enabled this state to assume the leadership role in developing a new and challenging health tool that has already surpassed its original purpose - geographical identification of nutrition problems. The system will be the greatest device at hand for evaluation of many existing and upcoming programs. The data will enable Louisiana to compare different subsections within the state with each other. The programs that effect positive nutritional status in one section can be applied to areas where problems continue to exist.

The population deemed most nutritionally vulnerable in The Ten-State Nutrition Survey were those with the lowest income. Therefore, data from this group should enable us to find the largest per cent of people with nutritional problems and the health agency would be able to identify groups of people in given subsections that were malnourished.

The American Academy of Pediatrics reviewed The Ten-State Nutrition Survey results and recommended that with a limitation of funds and personnel, good indices of nutritional status are height, weight, and hemoglobin and/or hematocrit levels of a given child. We agreed and pointed the data collection at those recommended values.

The same standards used for The Ten-State Nutrition Survey were used to define low hemoglobin (Hgb.) and hematocrit (Hct.) values.

Age	Low Hematocrit	Low Hemoglobin
Under 2 yrs.	≤ 31%	≤ 10 gms.
2 - 5 years	≤ 34%	≤ 11 gms.
6 - 9 years	≤ 36%	≤ 11.5 gms.

The Early Periodic Screening, Diagnosis,

and Treatment (EPSDT) clinics throughout the state were in the process of evaluating individually the health status of children from families receiving Aid to Families with Dependent Children. These children became our target population for nutrition surveillance. A system was implemented to collect these thousands of individual test results. Forms were developed through pilot studies in St. Bernard and Lafourche parishes. Contact with other local health officials began in January, 1973. The last parishes to become involved were contacted in May, 1973. The data will become more representative of the entire state during the next six month period as all parishes will have equal time to submit data.

The local parish units were personally contacted. Dr. Andrew Hedmeg, Deputy State Health Officer, wrote letters to the parish health officers asking for their advice and ideas to assist the program and for their cooperation. Personal contact was made with the personnel at each local health unit to explain the program and to instruct in methods of completing and submitting the forms for nutrition surveillance.

Sixty-one parishes are represented in this report. At this time Lincoln, Orleans, and Plaquemines Parishes are not participating. Orleans Parish will begin reporting as their new computer program is developed. Plaquemines Parish does not screen EPSDT children. Computer expertise and time are supplied by the Center for Disease Control, Nutrition Section, with assistance from our statistical people.

The state has been divided into regions and metropolitan areas for clearer understanding of areas of greatest need.

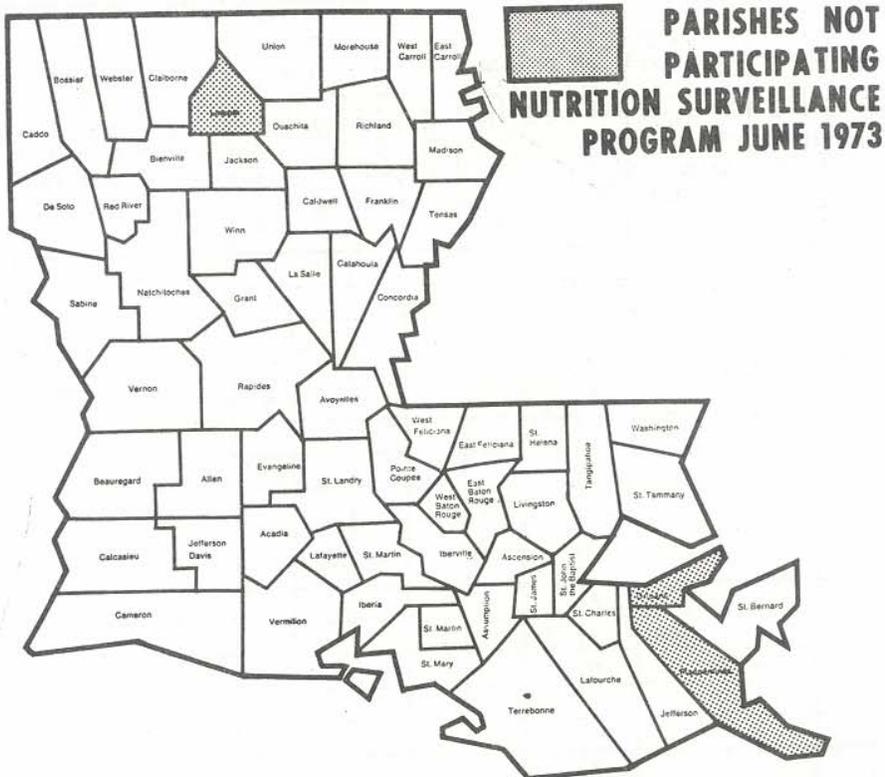
The regions and parishes included in each are the following:

- REGION I - Caddo, Bossier, Webster, Claiborne, DeSoto
- REGION II - Bienville, Natchitoches, Red River, Sabine
- REGION III - Union, Jackson, Caldwell, Franklin, Tensas, Grant, LaSalle, Catahoula, Concordia
- REGION IV - Morehouse, West Carroll, East Carroll, Ouachita, Richland, Madison
- REGION V - Winn, Rapides, Avoyelles, Pointe Coupee

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	JACKSON																			2
JEFFERSON	1		1		13	2							3		15				132	14
JEFFERSON DAVIS					2														5	
LAFAYETTE	1				7										5				21	
LAFOURCHE	1				1	1					1								15	
LASALLE																			3	
LINCQLN																			47	
LIVINGSTON																			3	
MADISON																			16	
MOREHOUSE																			12	1
NATCHITOCHE					2														36	1
ORLEANS	3	1			27	5	7				1		7		16				785	21
OUACHITA					1					4					1				102	2
PLAQUEMINES																			2	
POINTE COUPEE																			4	
RAPIDES					7										1				99	
RED RIVER																			1	2
RICHLAND																			15	
SABINE																			4	2
ST. BERNARD					2														8	
ST. CHARLES																			5	
ST. HELENA																			2	
ST. JAMES																			5	1
ST. JOHN							1												8	
ST. LANDRY						1													33	1
ST. MARTIN																			1	
ST. MARY					2														13	1
ST. TAMMANY					14														29	
TANGIPAHOA					3														25	2
TENSAS																			2	
TERREBONNE					2														12	1
UNION																			13	
VERMILION						2										1			4	
VERNON						1													116	
WASHINGTON																			23	
WEBSTER					1														24	
WEST BATON ROUGE																			10	1
WEST CARROLL													1						2	
WEST FELICIANA																			18	
WINN					1														6	2
OUT OF STATE																				

From January 1 through October 31, the following cases were also reported: 3-Actinomycosis; 6-Brucellosis; 2-Malaria.

FIGURE 1



- REGION VI - Vernon, Beauregard, Allen, Evangeline, St. Landry, Acadia, Calcasieu
- REGION VII - Cameron, Jefferson, Vermilion, Lafayette, St. Martin, Iberia, St. Mary, Terrebonne
- REGION VIII - Ascension, St. James, St. John, St. Charles, Lafourche, Iberville, Assumption, St. Bernard
- REGION IX - East Feliciana, St. Helena, Tangipahoa, Washington, St. Tammany
- REGION X - West Feliciana, East Baton Rouge, West Baton Rouge, Livingston
- METROPOLITAN PARISHES - Caddo, Ouachita, Rapides, Calcasieu, East Baton Rouge, and Jefferson Parishes

samples are obtained by the finger stick method and usually a hemoglobinometer is used to determine hemoglobin levels.

The per cent of low hemoglobins for the entire state is shown in Figure 2.

The 6-9 year old group shows the greatest percentage of low hemoglobins, but this figure may be misleading because of the few children from this age group. The majority of children represented on this chart are below 6 years of age. The 20.4 per cent low level is by no means acceptable. The 6202 children supplying the hemoglobins for this sample represent the most in-depth view of hemoglobin levels in Louisiana in this age group.

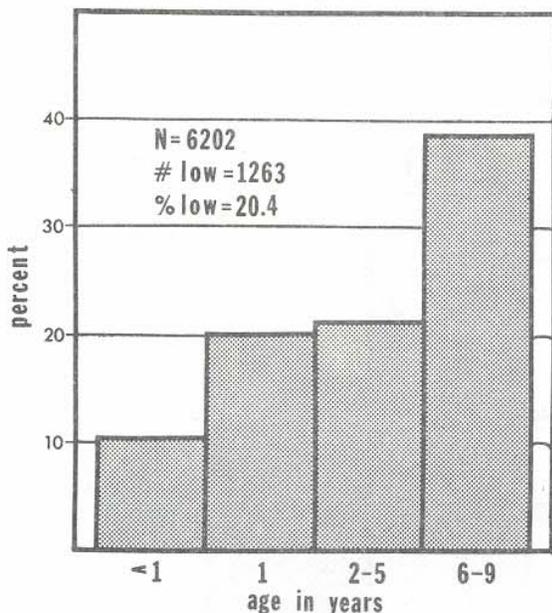
We knew problems of anemia existed from earlier surveys, but we had no means of pinpointing those areas where the deficiency existed most often. Our current surveillance activity enables us to look at the problem in a more definite light.

Most regions and metropolitan areas use hemoglobin values to demonstrate iron levels, but hematocrits are used in some areas. Blood

Figure 3 enables us to subdivide the state into the regions discussed earlier and compare regions with each other as well as the state.

FIGURE 2

PERCENT LOW HEMOGLOBINS BY AGE
LOUISIANA SURVEILLANCE PROGRAM
JANUARY - JUNE 1973



Remembering that the overall state average of low hemoglobins is 20.4 per cent, each region can be compared to this figure to see exactly how its children compare to the overall picture. All regions show poor results. However, the prevalence rate of anemia in this age group has been cut in half since the survey in 1968 - 69. Region VII and Region IV provide us with the extremes. The best showing in Region IV is nothing to expound on, and yet 12.2 per cent of their EPSDT population have better hemoglobin levels than Region VII. The Metropolitan picture offers some positive areas to explore.

Jefferson Parish has a smaller percentage of children falling into the low hemoglobin group than any other metropolitan or regional area. The exact reason for such a small percentage of low hemoglobins is not clear at this time, but some possible reasons are:

- (1) The parish is almost entirely metropolitan. The other parishes include rural areas. Anemia is more common among rural populations.
- (2) Mean income in Jefferson Parish is among the highest in the state.

FIGURE 3

Percent of Total with Low Hemoglobins by Region
Louisiana Surveillance Program
January - June 1973

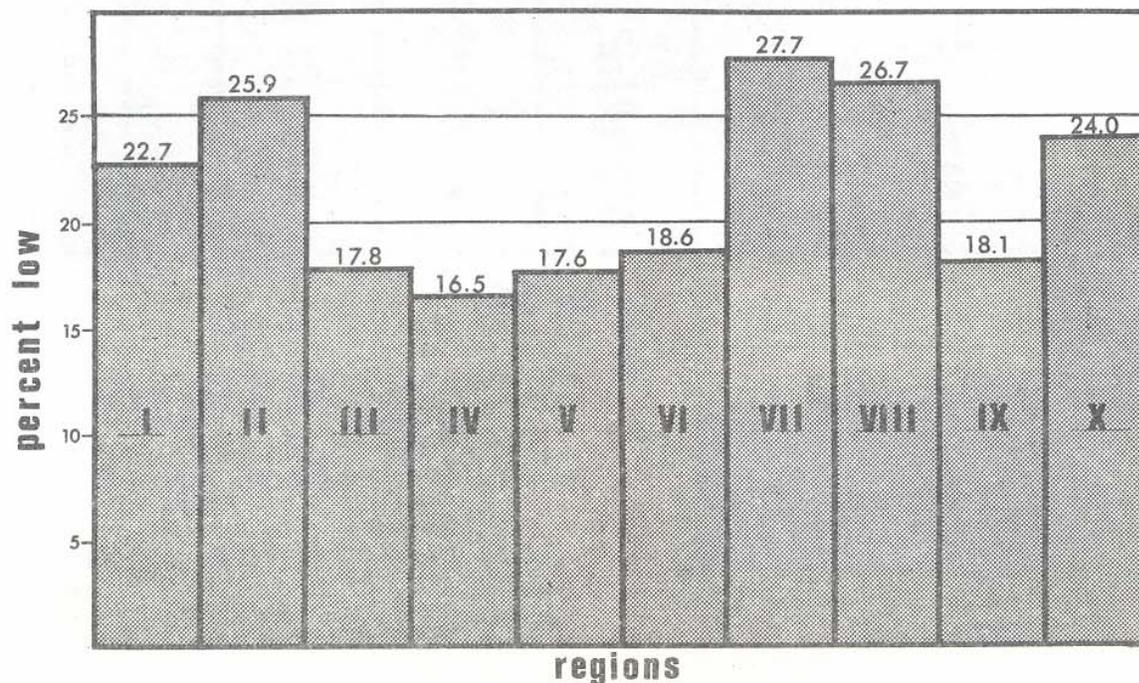
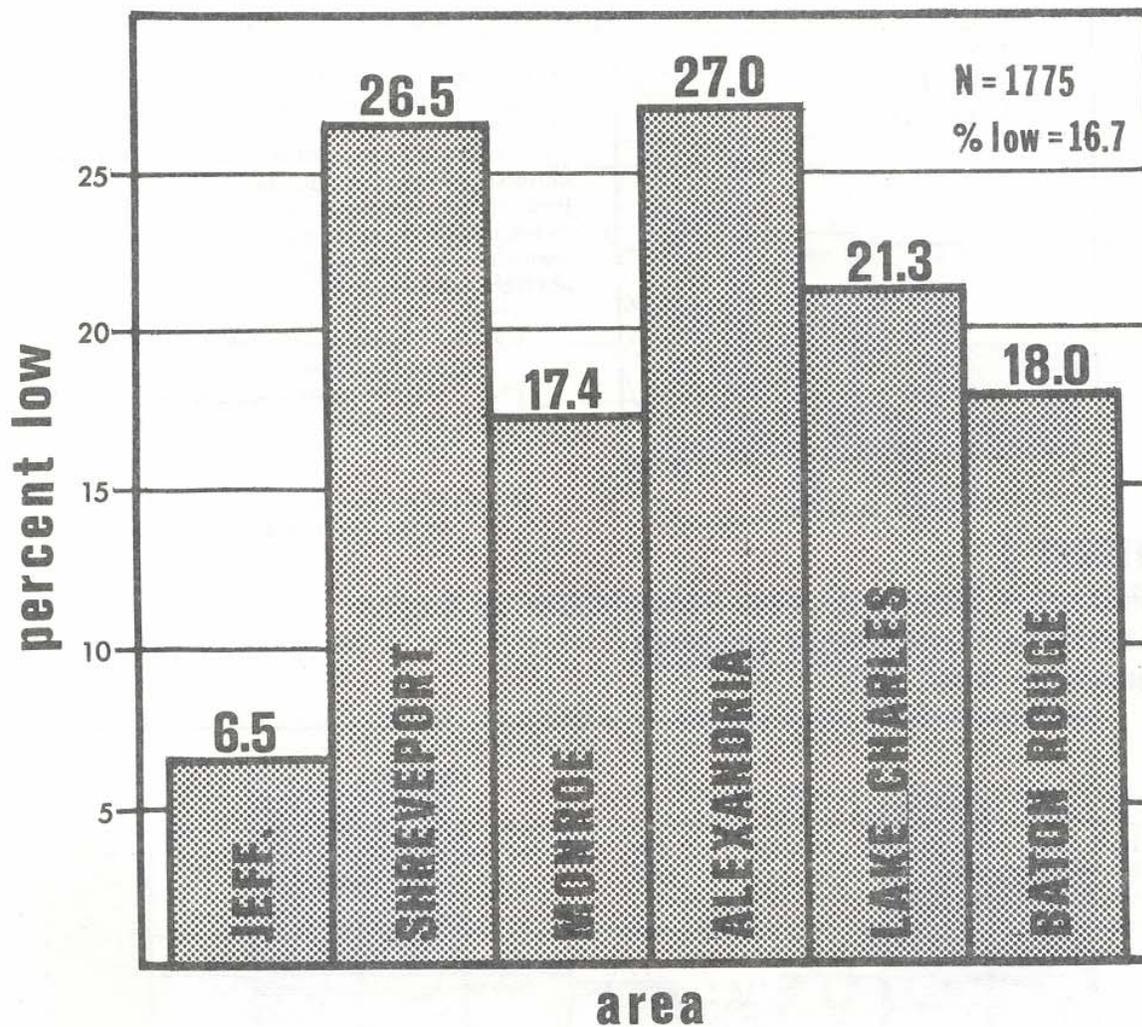


FIGURE 4

**Percent of Total with Low Hemoglobins
by Metro Area (Age <1 to 9 Years)
January-June 1973**



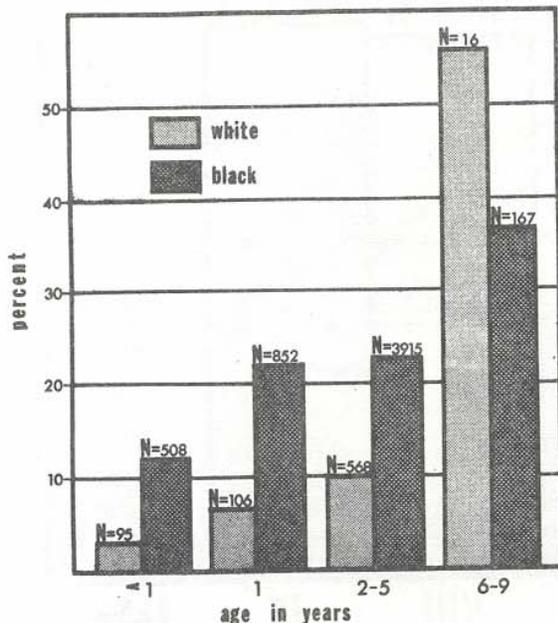
The poverty "pockets" are not as large or as severe as some areas.

- (3) Parish residents have had the advantages of more resources, including health centered O.E.O. programs and Headstart where group feeding was part of the program.

- (4) The Health Unit is well staffed including a local nutritionist. Hemoglobin determinations have been done routinely on children attending child health conferences for many years. Many of these children may have received iron medication. The use of iron-rich foods have been stressed.

FIGURE 5

PERCENT LOW HEMOGLOBINS BY AGE AND RACE
JANUARY - JUNE 1973



These are just a few of the circumstances experts will have to analyze and make determinations about for the benefit of other areas.

Another important breakdown of the total data is by ethnic group. The black children represent the majority of the sample and have twice the percentage of low hemoglobin levels. The 6 to 9 year old group does not reflect this finding but again note the small number of children within this age group.

The hematocrit levels in Louisiana have been better in both The Ten-State Nutrition Survey and the current surveillance program than overall hemoglobin levels. Fewer areas perform hematocrit procedures, although the state total is significant. The state picture is presented in the Figure 6. The per cent of the total with low hematocrits is 15.9 per cent. The regions that provide hematocrit data are also shown in Figure 7. Comparisons of region to state and region to region will display the contrast noted in the hemoglobin and hematocrit levels. Some areas perform both tests.

The racial division of hematocrits is similar to that found in hemoglobins. Again, the small number of white children included in the sample may skew the data, but the 2 to 1 prevalence of

anemia in black to white children is once more evident.

The height-weight data are very interesting. Based upon the Stuart-Meredith growth standards, one expects 5 per cent of the population to be below the 5th percentile, 25 per cent below the 25th percentile, etc. The following graphs are Louisiana children by race and sex for height and weight super-imposed upon this standard, Figure 9. An expected distribution of the population would appear as the following example.

Figures 10 and 11 display height by race of Louisiana boys and girls, respectively.

Among white boys 23.3 per cent fall below the 5th percentile, and 16.8 per cent of the black boys fall below that percentile. The girls maintain the same growth pattern in that 20.5 per cent of the white girls and 13.0 per cent of the black girls are below the 5th percentile for height.

The weight data for Louisiana children offers basically the same trend as the height data.

Figure 12 and 13 represent the weight for age distribution by sex and ethnic group. Far too many children fall within the lower per-

FIGURE 6
PERCENT WITH LOW HEMATOCRITS BY AGE
LOUISIANA SURVEILLANCE PROGRAM
JANUARY-JUNE, 1973

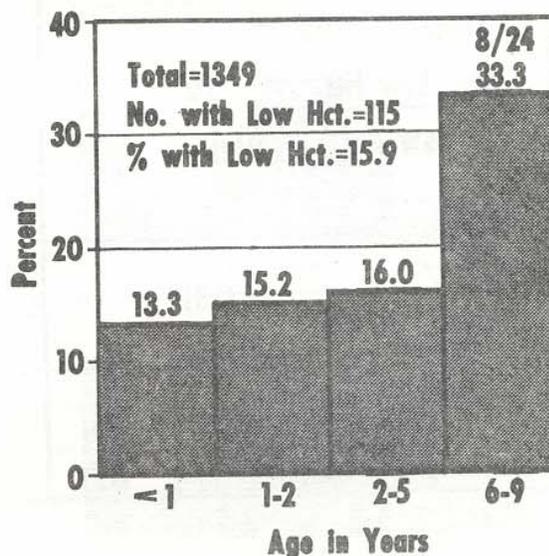


FIGURE 7

**% LOW HEMATOCRITS BY REGION AND METROPOLITAN AREA
LOUISIANA SURVEILLANCE PROGRAM JANUARY-JUNE 1973**

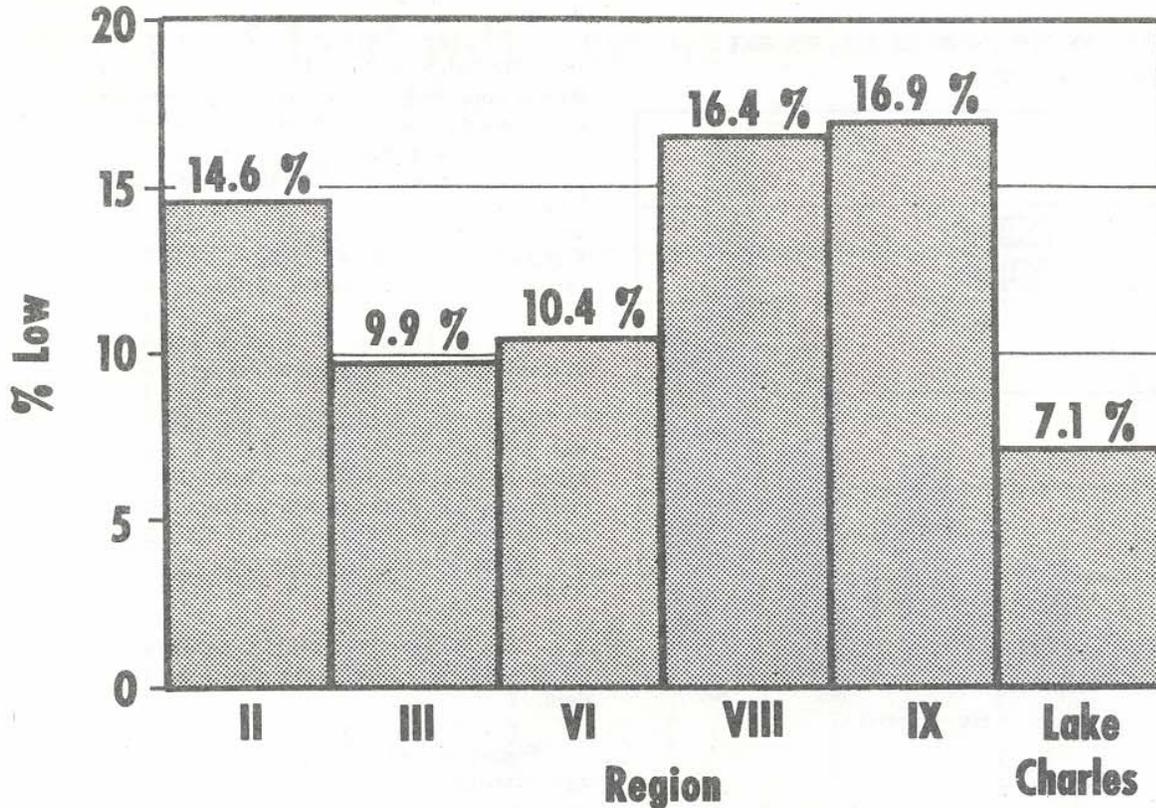


FIGURE 8

**PERCENT WITH LOW HEMATOCRITS BY RACE BY AGE
LOUISIANA SURVEILLANCE PROGRAM JANUARY-JUNE, 1973**

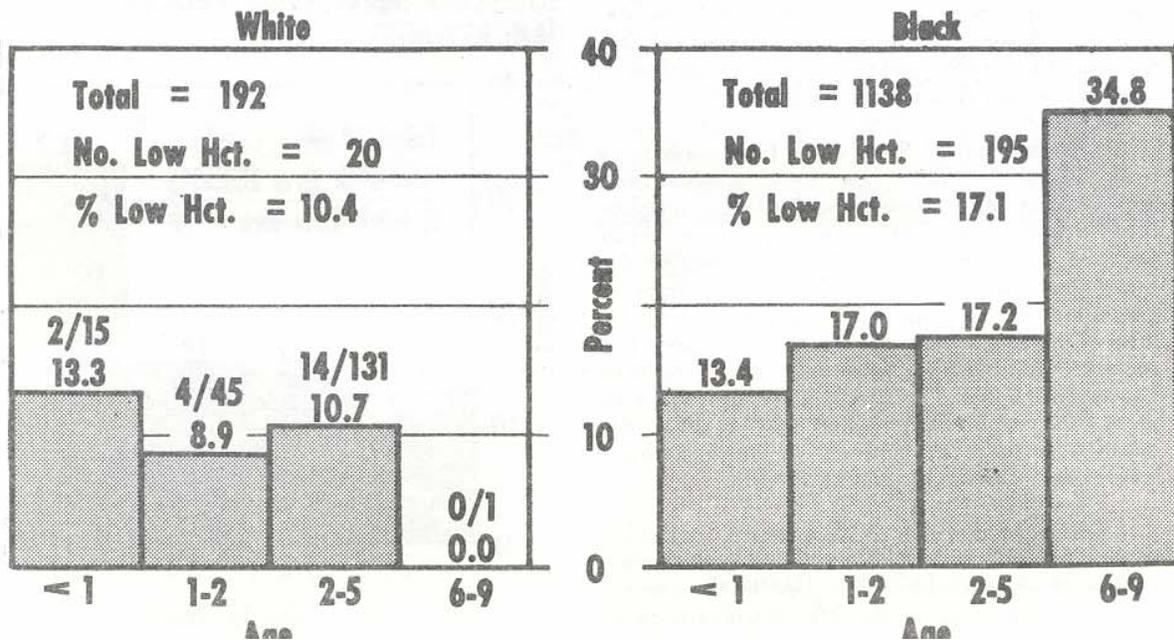
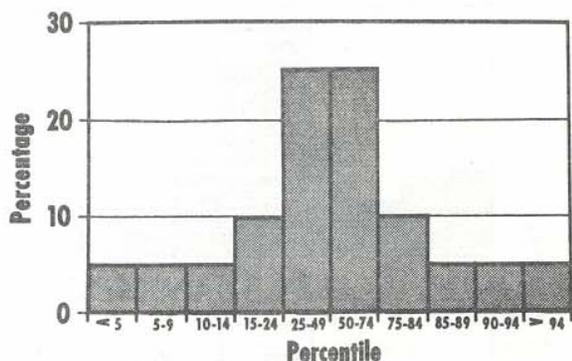


FIGURE 9
PERCENTAGES OF CHILDREN EXPECTED TO FALL INTO THE DESIGNATED PERCENTILES ACCORDING TO THE STUART - MEREDITH GROWTH STANDARDS



centiles. More white children, boys and girls, are in the lowest percentile grouping for weight. The black sample is six times larger than the white. Noting the similarities between growth trends of the white and black children, the white sample seems to offer a valid picture of growth even though a much smaller sample is demonstrated.

Jefferson Parish children's growth trends offer a challenging situation when compared

to their hemoglobin level. The growth pattern is poor when compared to other subsections, but their hemoglobin levels are the best in the state. The low height and weight coupled with the high levels of hemoglobins offer a converse nutritional phenomenon. Other studies of this nature tend to reflect better growth trends when anemia levels are satisfactory.

The overall growth trend simulates the 1968 - 69 survey findings. The white children continue to have larger percentages in the height and weight deficient group, while the black children nearly double the white children in prevalence of anemia. What does all this mean?

The surveillance system is an identification tool. Planning intervention programs and providing preventive care are the real goals of the system. Our parish health units can and do provide medicinal iron for identified anemia, but there must be educational activities, motivation techniques, etc., to improve present eating patterns. Legislation to improve and increase iron enrichment foods may assist in reducing the prevalence of anemia. Changing growth patterns could be more difficult and take longer to achieve.

The nutrition surveillance system has answered many of the questions raised during the Louisiana phase of The Ten-State Nutrition

FIGURE 10
PERCENTAGE DISTRIBUTION BY HEIGHT FOR AGE CENTILES LOUISIANA BOYS UNDER 9 YEARS OF AGE JANUARY - JUNE, 1973

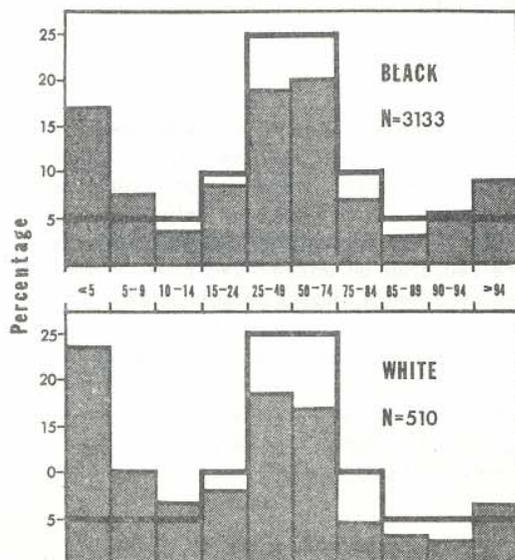


FIGURE 11
PERCENTAGE DISTRIBUTION BY HEIGHT FOR AGE CENTILES LOUISIANA GIRLS UNDER 9 YEARS OF AGE JANUARY - JUNE, 1973

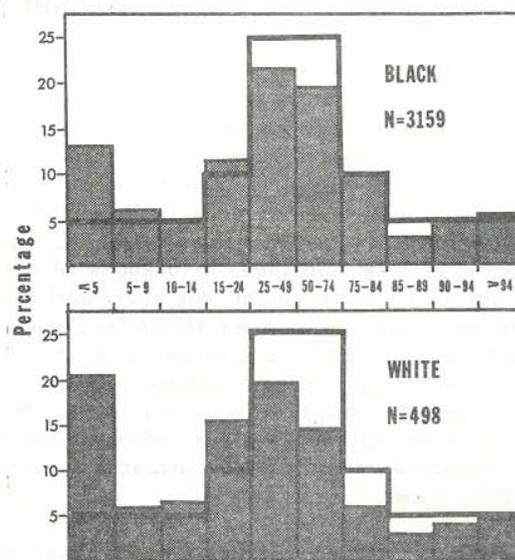
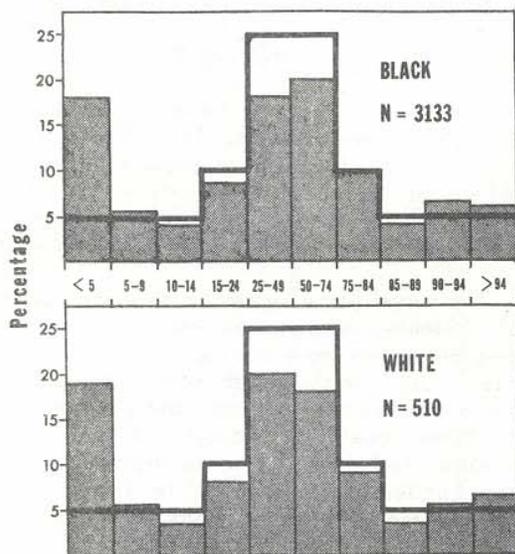


FIGURE 12

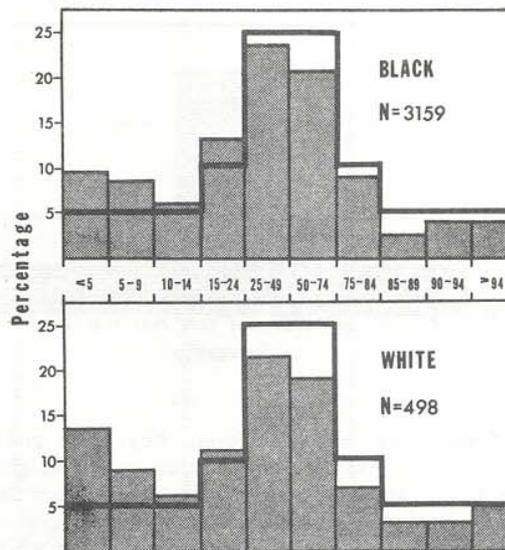
PERCENTAGE DISTRIBUTION BY WEIGHT FOR AGE CENTILES
LOUISIANA BOYS UNDER 9 YEARS OF AGE
JANUARY - JUNE, 1973



Survey and now offers new challenges for those people interested in Louisiana's public health.

FIGURE 13

PERCENTAGE DISTRIBUTION BY WEIGHT FOR AGE CENTILES
LOUISIANA GIRLS UNDER 9 YEARS OF AGE
JANUARY - JUNE, 1973



CRITERIA FOR FURNISHING STATE PURCHASED GAMMA GLOBULIN TO HEPATITIS CONTACTS

Parish health units have been instructed not to furnish gamma globulin for household contacts of cases of viral hepatitis when it has been determined that the case is POSITIVE to the Australian antigen (hepatitis-B) test. Gamma globulin will be furnished, in dosages of 0.01 ml. per pound body weight, for household contacts of Australian antigen NEGATIVE cases (hepatitis-A). In rural areas where the Australian antigen test is unavailable and the test can not be performed without several days delay, the health units may provide the gamma globulin to household contacts of unspecified viral hepatitis cases.

Physicians are requested to report all cases

of viral hepatitis and to classify them as either Australian antigen positive (HAA+), Australian antigen negative (HAA-), or viral hepatitis-unspecified (if the test is delayed or unavailable). If the Australian antigen test result is received after an unspecified case is reported, a corrected report should be submitted.

Evidence indicates that gamma globulin (standard immune serum globulin) offers no protection against HAA+ hepatitis. (MMWR Vol. 21, No. 25, June 24, 1972, ACIP Recommendations 1972-Supplement)

LOUISIANA OYSTERS LINKED TO HEPATITIS IN TEXAS AND GEORGIA

During the past two weeks the Louisiana oyster industry has come under heavy fire from public health officials in Texas and Georgia because of two major outbreaks of hepatitis which have been attributed to oysters harvested in Louisiana. As a result of heavy national and local publicity accorded these two outbreaks, many people who have, in the past, hungered for the high quality Louisiana oyster, now regard this delicacy with suspicion and apprehension.

The source of the current concern involves two outbreaks of infectious hepatitis, which occurred almost simultaneously in two different states. In one case 11 of 150 to 200 persons developed hepatitis approximately one month after attending seafood dinners sponsored by a local club on September 21 and 22 in Calhoun, Georgia. In the second case, at least 187 persons (count as of November 9) of an estimated 10,000 persons developed hepatitis after dining at a popular seafood restaurant in Houston, Texas between September 20 and October 5. As of this date there have been no deaths associated with either outbreak.

In both cases all affected individuals had eaten oysters on the half shell. Preliminary investigations indicate that the oysters served in Calhoun, Georgia were supplied by a Louisiana firm, and were the vehicle responsible for these

outbreaks. This same firm shipped oysters through a Texas distributor to the Houston restaurant, and is therefore, suspected as the source of both outbreaks.

At the present time there is no indication of widespread contamination of Louisiana oysters with the hepatitis virus. Cases of hepatitis reported to the Epidemiology Section of LHSRSA in 1973 show only a slight increase over last year's total and no apparent increase in oyster related hepatitis. In the absence of a significant increase in cases of hepatitis in this state, it would seem that the shipments of oysters responsible for the Houston and Calhoun outbreaks originated from a single isolated source. An intensive investigation by local, state, and federal health officials is currently being conducted to determine the exact location of this source.

It is imperative that physicians throughout the state maintain a careful vigilance for any cases of oyster associated hepatitis and report these cases immediately to the Epidemiology Section, LHSRSA (Telephone 504-527-8121, Dr. Caraway or Dr. Mackowiak) so that additional information regarding our own hepatitis experience can be assimilated, which may be an assistance in identifying any source of contaminated oysters.