JUNE 1975

CENTER FOR DISEASE CONTROL

NUTRITION SURVEILLANCE

TABLE OF CONTENTS

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

PREFACE

This report summarizes information, including selected indices of nutrition status, received from five participating States which comprise the initial group of contributors to a developing program of nutrition surveillance in the United States. We will consider adding other indices as their utility and availability become evident. To the extent possible, tabulations in subsequent issues will be presented in the same format unless experience indicates a change is appropriate.

The data presented in these tabulations come from a variety of sources including health department clinics, Headstart programs, and other health care situations. Because of the lack of uniformity of data sources, as well as methodology, direct comparisons among States should be made with caution.

Contributions to the Nutrition Surveillance Report are welcome. Please submit to:

Center for Disease Control
Attention: Preventable Diseases and
Nutrition Activity
Atlanta, Georgia 30333

Center for Disease Control . . . . . David J. Sencer, M. D.
Director

NUTRITION INDICES

Data presented in Tables 1-6 are based upon initial clinic visits of children examined during the first two quarters of 1975. The format of these data is similar to that presented in the January and April 1975 Nutrition Surveillance reports for the four quarters of 1974.

Several changes should be noted in the proportional makeup by States of the total data. For the first time data from Louisiana are included. They constitute 45% of the total hemoglobin values, and nearly 20% of the anthropometric values. Tennessee's relative contribution has increased, presently constituting 45% of the hematocrit data and also 20% of the anthropometric. The contribution of Kentucky has somewhat decreased making up about 11% of both the hemoglobin and hematocrit data, and 13% of the anthropometric for these first two quarters. Arizona's and Washington's shares of the total remain essentially unchanged.

Comparisons will be made among weighted arithmetic mean percentages of persons with abnormal values for these two most recent quarters by State, by sex and ethnic group, and by sex and age. For each comparison, the weighted means are derived from the total number of persons examined in the two quarters. Hereafter in the discussion, these weighted means will be referred to as the prevalence of an abnormality in a particular group.

Certain comparisons will also be made between prevalences of abnormal values in the first two quarters of 1975 and the first two quarters of 1974. No consistent seasonal trends are discerned.

Tables 1 and 2 show the continued high prevalence of low hemoglobin and hematocrit values, varying somewhat irregularly for the two hematologic measures. The highest prevalence of low hemoglobin values is in Louisiana, where about 20% of all children examined are anemic by this measure. Similarly for hematocrit, the highest prevalence of low values is in Tennessee, also at a level of 20%. The lowest prevalence of low hemoglobin is in this same State at about 6% for the two quarters. For the second quarter alone, Washington has the lowest prevalence of low hemoglobin values, 3.9%. Washington also has the lowest prevalence of low hematocrit values, 10.4% for the two quarters.

Anthropometric indices continue to show a general high prevalence of height for age values less than the 5th centile indicating retarded growth, and of weight for height values greater than the 95th centile indicating excessive weight. For the past two quarters, Arizona has the highest prevalence of each condition, 17.3 and 14.9% respectively. Prevalences of these indices are nearly as high in Kentucky with a prevalence of 16.3% having retarded growth, and 13% having excessive weight for the first two quarters of 1975. For the first two quarters of 1974, these same States stood in the same order having the highest prevalence of these anthropometric indices. Low height for age is least prevalent in Louisiana and Tennessee (approximately 10% in both States). High weight for height

is also least prevalent in these two States, being somewhat less common in Louisiana than in Tennessee. These findings emphasize the relative co-existence of short stature with heavy body weight. Weight for height values less than the 5th centile, an indication of acute undernutrition, continue to vary around the expected 5% level in the five States. For the first two quarters of 1975 the highest prevalence of low weight for height is 5.6% in Kentucky, and the lowest is 2.9% in Washington. These two States were also highest and lowest, respectively, in prevalence of low weight for height values for the first two quarters of 1974, with percentages of 6.2 and 3.5%.

Tables 3 and 4 indicate that for the past two quarters Blacks of both sexes continue to have the highest prevalence, among all ethnic groups, of low hemoglobin and hematocrit values. The percentages are nearly identical for females and males, with about 20% having low hemoglobin values and 18% low hematocrit. A higher prevalence of low hemoglobin is found in Spanish-Americans than in Whites. For the former there is a moderate sex difference, Spanish-Americans having a prevalence of 14.2% for females and 16.9% for males. For Whites, the prevalence rates are 13 and 13.4% respectively. The prevalences of low hematocrit values show a different pattern, the prevalence being nearly identical for female Spanish-Americans and Whites, 16 and 16.3% respectively, but male Spanish-Americans have a 15.6% rate and male Whites a 17.8% prevalence rate of low hematocrit values. These values for the first two quarters of 1975 do not differ significantly from those for the first two quarters of 1974. The greatest differences occur among Spanish-Americans, who are represented by relatively small numbers. The differences over time between Blacks and Whites in their prevalences of low hemoglobin and hematocrit are accountable in part by the changes previously described in the proportional contribution of the various States to the total values for hemoglobin and hematocrit.

No appreciable Black-White differences are currently observed in any of the anthropometric values. American Indians have the highest prevalence of retarded growth (low height-age); about 18% for each of the sexes. Spanish-Americans have the next highest prevalence, about 16%. These ethnic groups also have the highest prevalence of excessive weight (high weight-height); about 20% among American Indians and 13% among Spanish-Americans. These findings again indicate that among the populations under surveillance, shortness and stockiness tend to go together with American Indian children being somewhat more overweight than Spanish-American. The prevalence of acute undernutrition (low weight-height) is in the 3 to 5% range for all ethnic groups. It is highest among Blacks, with a prevalence, both sexes combined, of 4.8% being under the 5th centile for weight for height. Whites have only a slightly lower prevalence, 4.7%, for the two quarters of 1975. The lowest percentage of low weight for height values is observed in female American Indian children, who have a 2.9% prevalence for these latest two quarters. These anthropometric values are little changed from those of the first two quarters of 1974. Previously, for low height for age, Blacks had a slightly higher prevalence than Whites, but there were no significant Black-White differences in the percentages with either low or high weight for height values. The previous comparisons between American Indians and

Spanish-Americans were also essentially the same, the main difference being that the prevalence of low height for age was previously somewhat lower for each group. Additional minor differences between the two groups were observed in the relative prevalence of high weight for height values. Previously Spanish-Americans had higher prevalences of overweight children than American Indians; in the present tables the relationship is reversed.

Tables 5 and 6 continue to show the age trend, previously mentioned in the April Surveillance report, in the prevalence of low hemoglobin and hematocrit values. Except for hemoglobin in females during the 2nd quarter of 1975, the prevalence of low values for the two hematologic measures remains highest in the 6 to 9 year age group. Whether this observed trend is caused by biological factors or is a statistical artifact was questioned in the April report. An opposite age trend is noted in the prevalence of low height for age values. For this anthropometric index, the 6-9 year age group shows the lowest prevalence of children of both sexes with retarded growth. This observation lends support to a biological basis for greatest prevalence of anemic children occurring in this age group. It seems reasonable to postulate that this rapidly growing group of children, among whom relatively few have severe growth retardation, would have a relatively higher dietary requirement for iron, and consequently exhibit a higher proportion with anemia. This trend for 6-9 year old children of each sex to have the lowest prevalence of low height for age values, although not noted in previous Surveillance reports, was in fact manifested in all four quarters of 1974 save for males during the April-June quarter.

Somewhat similar age trends are noted in the two quarters of 1975, in the prevalence of high weight for height values. Female children under 6 have overweight rates more than double those of the 6-12 year olds. The prevalence of high weight for height again becomes higher in girls from 13 to 17. For males this age trend is more clear-cut with rates two to three times higher in boys under 6 than in older boys. No appreciable rise in prevalence of overweight is noted in teenage boys. Essentially similar age trends in high weight for height were present in the data of the first two quarters of 1974.

Table 1

Nutrition Indices by State, January-March 1975
Persons Less than 18 Years of Age

State	Hemoglobin[2]		Hematocrit[2]		Height For Age[1]		Weight For Age[1]		Weight For Height[1]		
	No. Exam.	% Low	No. Exam.	% Low	No. Exam.	% Low	No. Exam.	% Low	No. Exam.	% Low	% High
Arizona	2,088	14.5	3,245	14.7	5,210	19.1	5,242	9.1	5,120	5.3	16.2
Kentucky	993	15.0	1,207	17.3	2,909	14.7	2,917	8.6	2,870	6.0	14.1
Louisiana	5,399	21.4	1,470	15.0	7,053	9.9	7,111	7.3	6,925	5.1	6.9
Tennessee	526	5.5	5,256	18.9	5,806	10.1	5,913	5.6	5,745	5.2	9.5
Washington	390	11.0	2,912	10.5	3,798	13.0	3,807	6.3	3,779	2.8	11.5
Total	9,396	17.9	14,090	15.7	24,776	12.9	24,990	7.3	24,439	4.9	11.0

[1]Children <1 month of age excluded.

[2]Children <6 months of age excluded.

Table 2

Nutrition Indices by State, April-June 1975
Persons Less than 18 Years of Age

State	Hemoglobin		Hematocrit		Height For Age		Weight For Age		Weight For Height		
	No. Exam.	% Low	No. Exam.	% Low	No. Exam.	% Low	No. Exam.	% Low	No. Exam.	% Low	% High
Arizona	1,874	13.4	2,067	11.9	3,690	15.2	3,721	7.2	3,638	4.0	13.2
Kentucky	824	20.0	1,109	17.1	2,550	13.6	2,553	7.2	2,512	5.1	11.7
Louisiana	930	18.8	215	16.7	1,198	9.9	1,208	6.5	1,185	3.3	7.8
Tennessee	374	6.7	6,411	21.5	7,197	10.2	7,358	5.9	7,111	4.2	9.9
Washington	386	3.9	1,915	10.3	2,799	12.0	2,799	6.2	2,777	2.9	11.6
Total	4,388	14.4	11,717	17.5	17,434	12.0	17,639	6.4	17,223	4.0	11.0

Table 3

Nutrition Indices by Sex and Ethnic Group, January-March 1975
Persons Less than 18 Years of Age

Sex and Ethnic Group	Hemoglobin No. Exam.	Hemoglobin % Low	Hematocrit No. Exam.	Hematocrit % Low	Height For Age No. Exam.	Height For Age % Low	Weight For Age No. Exam.	Weight For Age % Low	Weight For Height No. Exam.	Weight For Height % Low	Weight For Height % High
Male											
Black	2,527	21.5	1,424	16.7	4,081	11.7	4,111	8.2	4,026	5.4	8.1
White	1,436	13.2	3,883	16.0	5,678	12.8	5,732	7.4	5,628	4.8	10.8
Sp. American	541	17.6	527	14.4	952	20.8	959	9.9	942	4.9	14.8
Am. Indian	60	13.3	1,031	14.9	1,405	20.1	1,403	9.2	1,390	5.9	18.3
Oriental	2	100.0	12	33.3	19	10.5	19	0.0	19	5.3	10.5
Other	7	42.9	28	14.3	37	16.2	37	13.5	37	0.0	13.5
Unknown	49	18.4	138	33.3	185	12.4	188	4.3	185	2.7	13.5
Total	4,622	18.4	7,043	15.7	12,357	13.9	12,449	8.1	12,227	5.1	11.1
Female											
Black	2,533	20.9	1,369	16.7	4,075	10.6	4,119	6.3	3,970	4.8	8.1
White	1,491	13.6	3,839	15.9	5,757	10.4	5,822	6.8	5,694	5.3	9.5
Sp. American	618	13.6	583	15.1	1,017	16.4	1,029	6.6	996	4.2	13.5
Am. Indian	62	9.7	1,015	13.6	1,349	19.6	1,350	5.7	1,335	3.1	22.4
Oriental	2	0.0	8	12.5	9	0.0	9	0.0	9	11.1	0.0
Other	4	0.0	27	7.4	36	19.4	37	8.1	35	2.9	17.1
Unknown	47	14.9	141	0.0	176	13.1	175	4.0	173	3.5	13.9
Total	4,757	17.4	6,982	15.5	12,419	12.0	12,541	6.5	12,212	4.8	10.9

Table 4

Nutrition Indices by Sex and Ethnic Group, April-June 1975
Persons Less than 18 Years of Age

Sex and Ethnic Group	Hemoglobin No. Exam.	Hemoglobin % Low	Hematocrit No. Exam.	Hematocrit % Low	Height For Age No. Exam.	Height For Age % Low	Weight For Age No. Exam.	Weight For Age % Low	Weight For Height No. Exam.	Weight For Height % Low	Weight For Height % High
Male											
Black	699	17.2	698	19.8	1,538	13.1	1,546	7.3	1,524	4.1	9.8
White	868	13.9	4,174	19.6	5,509	11.7	5,588	6.9	5,456	4.8	9.8
Sp. American	473	16.3	401	16.2	775	14.5	787	7.1	766	3.0	11.1
Am. Indian	144	6.3	429	11.2	698	15.2	699	5.7	692	2.9	17.6
Oriental	0	0.0	13	0.0	15	13.3	15	13.3	15	6.7	20.0
Other	2	0.0	12	0.0	15	13.3	15	13.3	15	6.7	26.7
Unknown	15	0.0	91	12.1	113	15.9	113	7.1	111	1.8	9.0
Total	2,201	14.9	5,818	18.6	8,663	12.5	8,763	6.9	8,579	4.3	10.6
Female											
Black	720	17.9	685	21.5	1,570	11.1	1,581	6.1	1,538	4.2	10.9
White	812	11.7	4,187	16.5	5,495	11.2	5,579	6.3	5,421	3.7	10.2
Sp. American	484	13.8	416	17.3	799	13.9	809	5.8	791	4.6	11.5
Am. Indian	133	6.0	417	7.2	731	13.0	732	4.8	722	2.5	22.2
Oriental	0	0.0	29	13.8	32	9.4	32	3.1	32	3.1	12.5
Other	5	20.0	10	0.0	18	5.6	17	0.0	16	0.0	6.3
Unknown	20	10.0	95	9.5	126	10.3	126	1.6	124	1.6	10.5
Total	2,174	13.9	5,839	16.3	8,771	11.5	8,876	6.0	8,644	3.7	11.4

Table 5

Nutrition Indices by Sex and Age, January-March 1975
Persons Less than 18 Years of Age

Sex and Age Group	Hemoglobin No. Exam.	Hemoglobin % Low	Hematocrit No. Exam.	Hematocrit % Low	Height For Age No. Exam.	Height For Age % Low	Weight For Age No. Exam.	Weight For Age % Low	Weight For Height No. Exam.	Weight For Height % Low	Weight For Height % High
Male											
<1 Year	322	12.4	950	7.7	3,139	19.6	3,182	11.6	3,061	5.7	12.7
1 Year	603	16.7	1,401	10.1	1,737	17.3	1,764	8.1	1,727	6.4	19.2
2-5 Years	1,261	17.4	2,822	18.0	3,540	12.4	3,555	5.9	3,531	3.8	11.2
6-9 Years	790	23.4	756	27.4	1,368	6.4	1,367	4.0	1,362	5.1	5.9
10-12 Years	699	19.2	495	18.8	1,094	8.2	1,101	6.2	1,090	5.3	5.7
13-17 Years	947	18.1	619	14.2	1,479	12.4	1,480	10.7	1,456	4.9	6.7
Total	4,622	18.4	7,043	15.7	12,357	13.9	12,449	8.1	12,227	5.1	11.1
Female											
<1 Year	361	11.1	837	9.9	3,078	15.4	3,132	8.7	3,003	5.9	14.0
1 Year	584	12.5	1,284	7.9	1,606	16.3	1,642	5.8	1,597	4.6	17.3
2-5 Years	1,238	13.7	2,778	16.9	3,510	12.0	3,531	4.7	3,499	3.3	11.5
6-9 Years	767	23.6	787	28.1	1,379	6.5	1,375	4.5	1,372	5.5	4.1
10-12 Years	735	18.6	575	17.0	1,196	8.6	1,200	8.6	1,184	8.0	4.9
13-17 Years	1,072	21.4	721	15.4	1,650	8.4	1,661	6.7	1,557	3.0	7.4
Total	4,757	17.4	6,982	15.5	12,419	12.0	12,541	6.5	12,212	4.8	10.9

Table 6

Nutrition Indices by Sex and Age, April-June 1975
Persons Less than 18 Years of Age

Sex and Age Group	Hemoglobin No. Exam.	Hemoglobin % Low	Hematocrit No. Exam.	Hematocrit % Low	Height For Age No. Exam.	Height For Age % Low	Weight For Age No. Exam.	Weight For Age % Low	Weight For Height No. Exam.	Weight For Height % Low	Weight For Height % High
Male											
<1 Year	297	15.2	747	10.4	2,658	16.9	2,687	9.8	2,589	5.4	11.7
1 Year	418	14.4	1,135	10.4	1,318	12.9	1,351	6.8	1,312	5.6	16.0
2-5 Years	779	12.8	2,446	20.8	2,747	10.7	2,776	4.1	2,741	3.0	10.1
6-9 Years	253	22.9	683	28.8	793	7.2	796	4.6	793	4.4	5.5
10-12 Years	193	12.4	398	23.4	515	8.7	519	6.4	515	2.9	6.4
13-17 Years	261	15.3	409	21.3	632	11.4	634	10.3	629	4.1	6.2
Total	2,201	14.9	5,818	18.6	8,663	12.5	8,763	6.9	8,579	4.3	10.6
Female											
<1 Year	259	9.7	770	9.2	2,659	15.0	2,691	7.8	2,579	4.3	14.0
1 Year	354	13.8	1,049	9.8	1,217	15.6	1,261	5.3	1,216	4.2	16.7
2-5 Years	786	12.2	2,336	16.1	2,707	9.9	2,726	4.6	2,697	2.9	9.7
6-9 Years	265	15.8	698	31.1	807	5.2	812	3.2	806	4.5	7.9
10-12 Years	204	18.1	445	18.9	585	7.5	588	7.7	581	4.8	4.8
13-17 Years	306	17.3	541	18.7	796	8.8	798	7.0	765	2.7	9.0
Total	2,174	13.9	5,839	16.3	8,771	11.5	8,876	6.0	8,644	3.7	11.4

CRITERIA FOR IDENTIFYING INDIVIDUALS WITH LOW OR HIGH VALUES

1. Low Hemoglobin and Low Hematocrit: Hemoglobin or hematocrit below the level specified in the following table for appropriate age and sex.

Age	Hgb.	Hct.
6-23 months	10 grams	31%
2-5 years	11 grams	34%
6-14 years	12 grams	37%
15 or more years (females)	12 grams	37%
15 or more years (males)	13 grams	40%

2. Low Height for Age: Height for age less than the 5th percentile of a person of the same sex and age in the reference population.

3. Low Weight for Age: Weight for age less than the 5th percentile of a person of the same sex and age in the reference population.

4. Low Weight for Height: Weight for height less than the 5th percentile of a person of the same sex and height in the reference population.

5. High Weight for Height: Weight for height greater than the 95th percentile of a person of the same sex and height in the reference population.

Reference Population: Smoothed distribution of percentiles of the following populations:

Age	Reference Population Data
Birth - 24 months	Fels Research Institute Growth Study
25 - 59 months	Preschool Nutrition Survey
60 -143 months	National Health Examination Survey, Cycle II
144 -215 months	National Health Examination Survey, Cycle III

Note: Growth percentiles represent heights and weights which have been standardized for sex and age, and sex and height (for weight for height). Therefore height and weight comparisons may be made between groups of individuals using percentiles without being concerned about the age and sex distributions of groups being compared. However, comparisons of height and weight among groups with persons of diverse ethnic origins should be made with care because of possible genetic differences in growth potential. Differences observed between groups may be due to differences in nutritional status of the individuals or in possible differences in the ethnic makeup of the groups.

WEST AFRICAN NUTRITIONAL STATUS SURVEYS

Introduction and Objectives

The sahel region of West-Central Africa, at the southern end of the Sahara Desert, is an area where food supplies are barely adequate to meet nutritional needs during the best of times. A slight decline in food availability may thus rapidly result in acute undernutrition. Such a situation has occurred in the last few years when inadequate rains caused reportedly extensive crop failure and famine throughout much of the area.

In 1973 the United States Agency for International Development (AID), along with a number of other donor agencies, began sending food and other relief supplies to the sahel. At the same time AID asked the Center for Disease Control (CDC) to develop and carry out nutrition surveys in the area. During 1973 a variety of methodological problems were worked out, and in 1974 surveys were carried out in five countries: Chad, Mali, Mauritania, Niger, and Upper Volta. In order to measure changes in status since 1974, two surveys were planned for 1975, and data from the first of these are now available.

Survey activities are designed to provide a quantified measure of the extent of acute undernutrition in the rural sedentary population of that portion of each country estimated to be most affected by the drought. The two basic components of the methodology are a carefully designed statistical sampling process which gives each child in the chosen area an equal chance of being included in the sample, and an anthropometric assessment technique which compares the surveyed population's weight/height with that of a recognized reference population.

Results

Figure 1 indicates the areas surveyed in both June-July of 1974 and February-April of 1975.

Table 1 gives the distribution of children measured by decile of the reference population's weight/height. While improvement has taken place in all three countries surveyed, the most striking changes were observed in Mali and Mauritania (see Figures 2 and 3) where the percentages in the first decile decreased by more than half. It is also encouraging to see increases in the top two deciles where the percentages grew from 0.9 to 4.6. This suggests that nutritional improvement has occurred throughout the survey population, not just in those groups at the lower end of the distribution.

Table 2 divides the survey population into two groups, those greater and lesser than 85 centimeters in height. In 1974 the condition of the smaller, younger children was much worse than in the larger older groups. While the nutritional status of the smaller children continues to be more serious, the difference between the two groups is less pronounced than in 1974. Whereas the difference was 16.2% in 1974, it was only 8.4% in the first 1975 survey.

Conclusions

There are probably two reasons for the marked improvement in nutritional status since 1974. First the relief shipments sent by the United States and others have undoubtedly had a beneficial effect. Of the 103 villages visited in the 1975 survey, 93 reported receiving food relief supplies within the last year. Second, the rains in the last half of 1974 were generally better than in a number of years, and harvests in many areas were consequently improved.

The value of a survey system, such as that used in West-Central Africa, which is inexpensive, precise, and easily implemented by para-medical personnel, lies in its ability to document change. Having now established baseline nutritional information in the sahel, it will be possible to measure changes in status whenever public health intervention programs or ecological shifts suggest that some improvement or deterioration may be occurring.

FIGURE 1
SAMPLE AREAS FOR THE 1975 NUTRITION SURVEY IN THE SAHEL

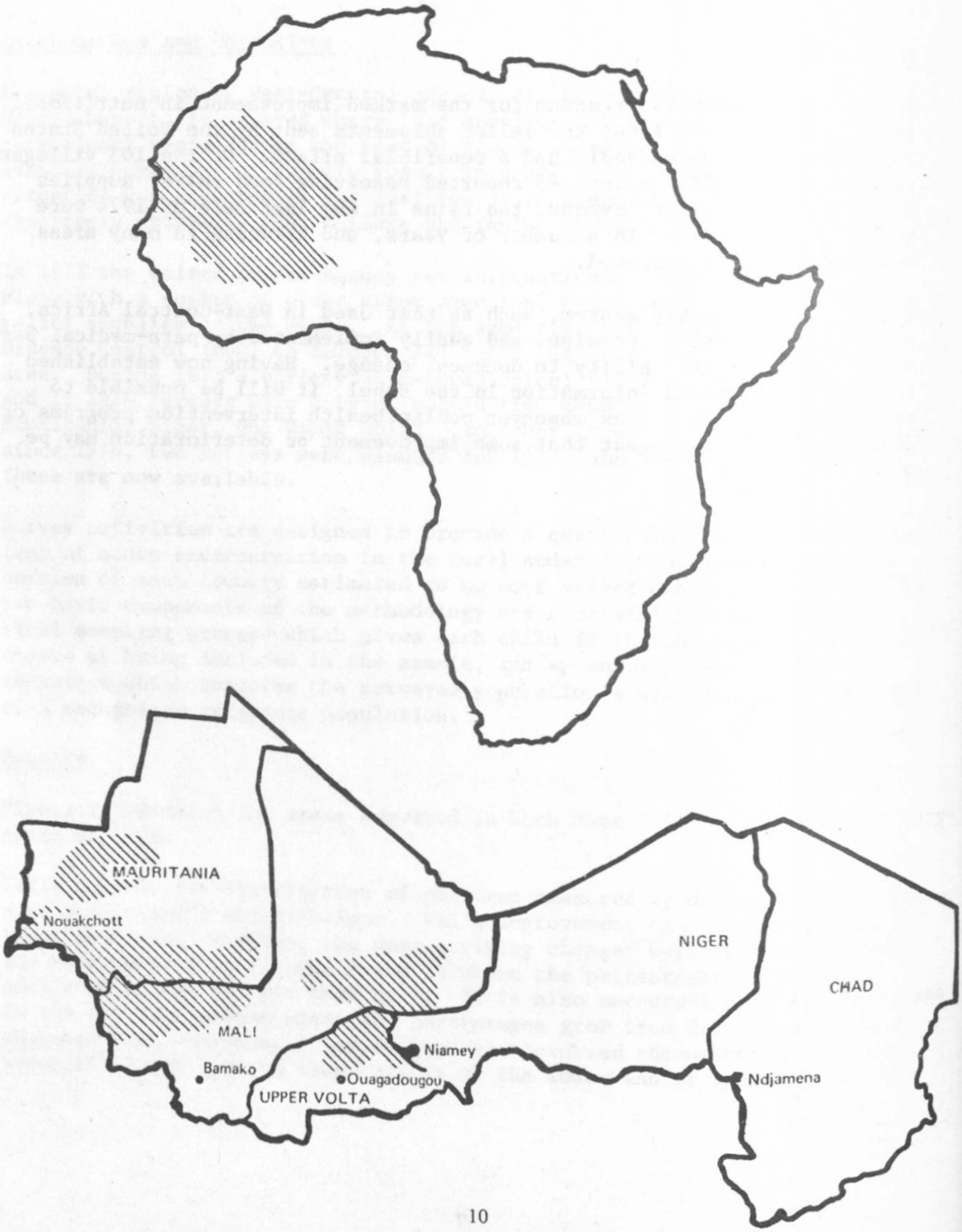

Figure 2

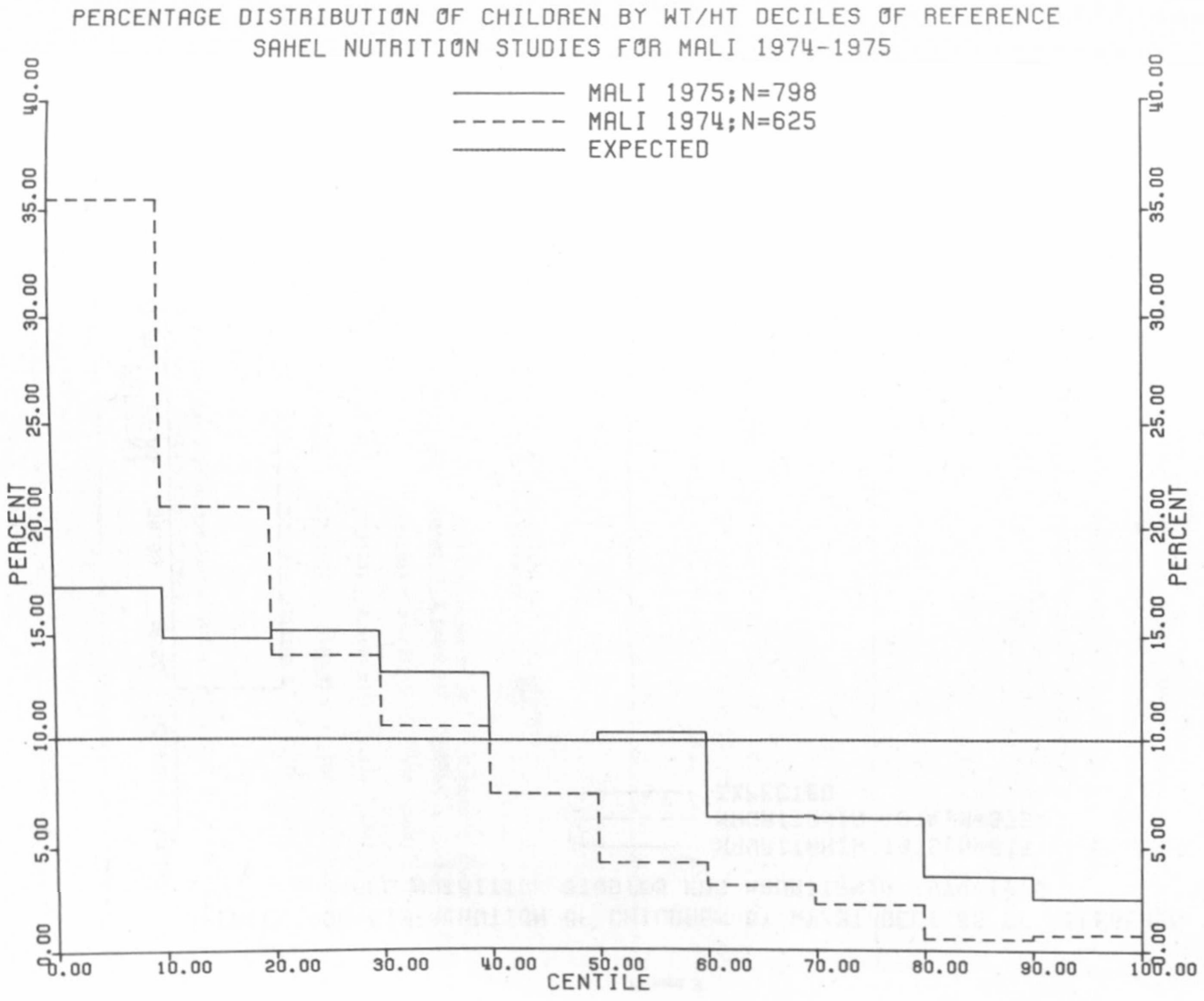
PERCENTAGE DISTRIBUTION OF CHILDREN BY WT/HT DECILES OF REFERENCE
SAHEL NUTRITION STUDIES FOR MALI 1974-1975
MALI 1975;N=798
MALI 1974;N=625
EXPECTED
PERCENT
CENTILE
0.00
5.00
10.00
15.00
20.00
25.00
30.00
35.00
40.00
0.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
100.00

Figure 3

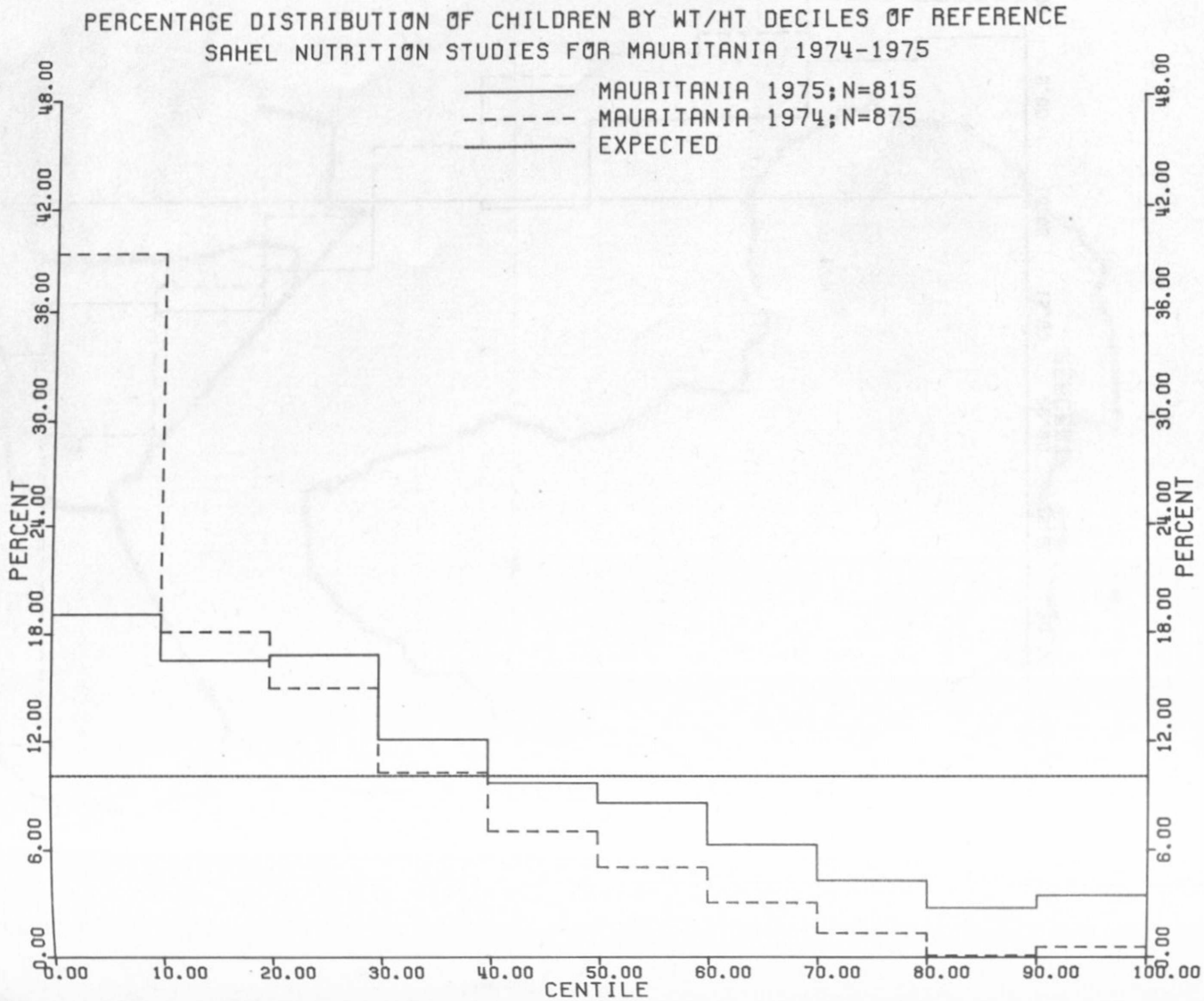
PERCENTAGE DISTRIBUTION OF CHILDREN BY WT/HT DECILES OF REFERENCE
SAHEL NUTRITION STUDIES FOR MAURITANIA 1974-1975
MAURITANIA 1975;N=815
MAURITANIA 1974;N=875
EXPECTED
PERCENT
0.00
6.00
12.00
18.00
24.00
30.00
36.00
42.00
48.00
CENTILE
0.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
100.00

Table 1

Distribution of Children Measured by Decile of Reference Weight for Given Height for Sample Area (June-July 1974) and February-April 1975

Population	No. of Children Examined	Decile: First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth
Reference	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Mali	798	17.3(35.5)	14.9(21.0)	15.3(14.1)	13.3(10.7)	10.0(7.5)	10.4(4.3)	6.4(3.2)	6.3(2.2)	3.6(0.6)	2.5(0.8)
Mauritania	815	19.1(39.4)	16.6(18.1)	16.9(15.0)	12.1(10.2)	9.6(7.0)	8.5(5.1)	6.3(3.2)	4.4(1.4)	2.9(0.1)	3.6(0.6)
Upper Volta	898	29.1(34.3)	19.2(19.8)	15.4(15.9)	11.1(9.8)	9.8(7.1)	7.0(5.6)	5.7(4.5)	1.4(2.3)	1.0(0.6)	0.3(0.2)
TOTAL (Minus reference)	2,511	22.1(36.5)	17.0(19.4)	15.9(15.1)	12.1(10.2)	9.8(7.2)	8.6(5.1)	6.1(3.7)	3.9(1.9)	2.5(.4)	2.1(.5)

Table 2

Children Below the AUT* by Height for Sampled Areas (June-July 1974) and February-April 1975

Country	Children Examined: Number	% Below AUT	Children Under 85 cm: Number	% Below AUT	Children 85 cm or more: Number	% Below AUT
Mali	798 (625)	4.5(10.7)	248(186)	8.1(21.5)	550 (439)	2.7(6.2)
Mauritania	815 (875)	4.4 (9.9)	277(303)	8.4(20.8)	538 (572)	2.7(4.2)
Upper Volta	898 (875)	7.0 (9.1)	236(302)	17.8(19.9)	662 (573)	3.3(3.5)
Total	2,511(2,375)	5.4 (9.9)	761(791)	11.3(20.7)	1,750(1,584)	2.9(4.5)

*The AUT (Acute Undernutrition Threshold) has been designated as 80% of the median weight-for-height values derived from the Stuart-Meredith reference population.