

Height and Weight of Haitian Children

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CORRELATED data on age, stature and weight of children in the underdeveloped countries are important for various epidemiologic studies. The observations presented herein were made incidental to another project concerning growth of Haitian children¹ on 7,409 children from infancy to eighteen years of age (Table 1). All measurements were made by two of us (J. F. and W. F.), in collaboration with several teachers and a clinic nurse. Only those children with recorded birth dates were accepted for the study. Stature was determined to the nearest half inch. The anthropometer used was devised by one of us (E. L. S.). A sectional wood vertical unit is mounted by insertion of a rounded tip into a plumber's flange on a hard wood platform. On the vertical unit is a steel tape marked in inches. A triangular slide to rest upon the head completed the equipment. Length of infants was determined by using the same equipment horizontally on a table. Weights were determined by a platform beam scale and read to the nearest half pound.

The children have been classified for tabular study into the following three groups: wealthy urban, poor urban and rural. Wealthy urban children were students in private schools in Port au Prince and Petionville which charged monthly tuition of fifteen dollars or more. Results from all such schools except one are included in the data; the supervisors of the excepted school were not willing to cooperate.

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Poor urban children were students in government-operated schools in Port au Prince in which no tuition is charged. Rural children aged 0 to 5 years were measured in a number of small villages (population 250) in the Cul de Sac on market days when peasant children were in town. Rural children aged six to eighteen years represent all students in the free government-operated rural schools in the Cul de Sac towns, Fond Parisien and Ganthier, and in Manegue. Statistical study and graphic presentation of the data have been carried out by one of us (K. W. K.), who also supervised

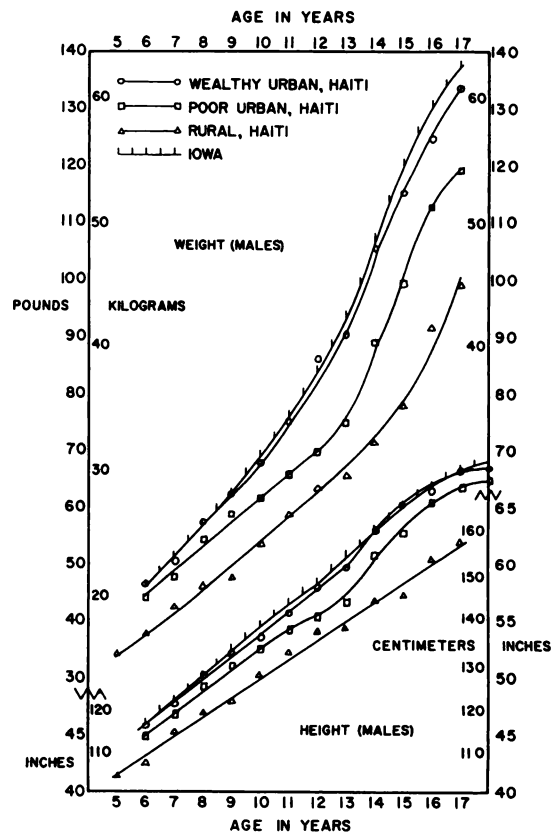


FIG. 1. Means for stature and weight of Haitian boys.

Height and Weight of Haitian Children

TABLE I
Number of Children by Sex, Age and Economic Status

Age (yr.)	Wealthy Urban		Poor Urban		Rural	
	Boys	Girls	Boys	Girls	Boys	Girls
0-2	...	...	...	...	342	332
3	...	...	...	...	100	100
4	...	...	...	...	102	101
5	...	...	...	...	81	100
6	102	120	100	100	7	20
7	109	139	100	117	28	22
8	102	106	100	123	22	29
9	103	132	100	122	19	34
10	107	124	114	137	21	16
11	105	106	100	100	28	27
12	128	102	113	117	21	21
13	136	112	100	125	17	19
14	103	120	100	102	20	16
15	115	105	109	100	20	14
16	109	105	100	104	28	13
17	100	100	103	100	12	5
18	83	100	100	101	8	4
Total	1,402	1,471	1,339	1,448	876	873
Grand Total	...	...	...	...	...	7,409

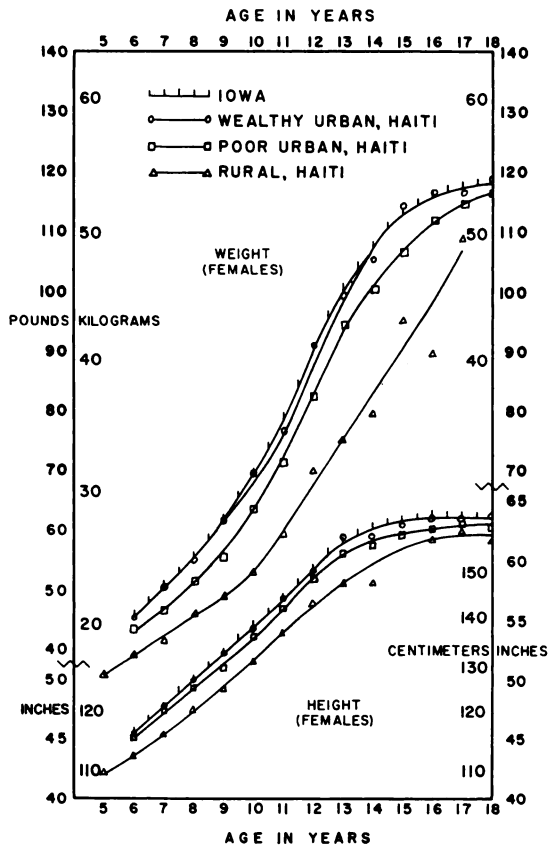


FIG. 2. Means for stature and weight of Haitian girls.

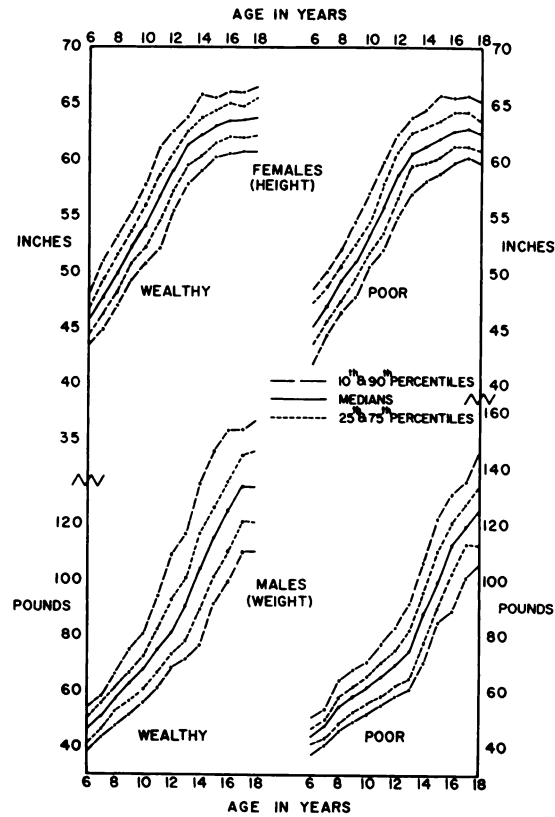


FIG. 3. Percentile distribution of stature and weight in Haitian children.



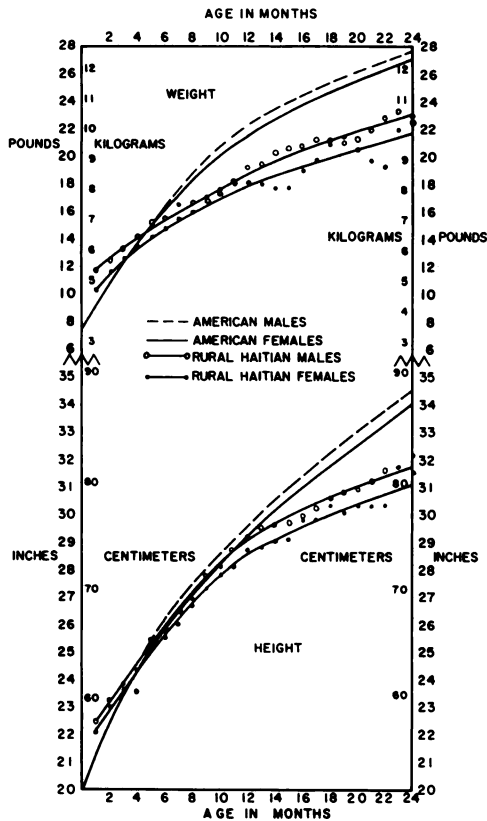


FIG. 4. Mean values for stature and weight of rural Haitian infants.

the mensuration and recording of original data. In the graphs use has been made of the widely employed Iowa standards² and of the Boston Children's Medical Center Anthropometric Charts.^{3,4}

The mean stature and weight of the three groups of Haitian boys are presented in Figure 1, using as a reference curve the American data.² Similarly, in Figure 2 are seen the same data for girls.

Selected data from the curves shown in Figures 1 and 2 are illustrated in Figure 3. The percentile lines indicate the degree of dispersion which is not dissimilar to that in the American data.

The data for the infants are assembled in Figure 4 in the form of moving averages, comparisons being made with the Boston data.^{3,4} Close inspection of Figure 4 suggests that rural Haitian infants may be both heavier and longer than American children from

birth to two or three months of age. The number of subjects of this age studied was small (Table II), and the use of three step moving averages would bias the values upwards at ages one and two months. Birth weights and heights may be equal to American norms, but it is difficult to rationalize the high values observed with the general low plane of nutrition and hygiene in the homes from which these children come. A more extensive study involving measurement of several hundred children at monthly intervals would be necessary to describe these growth stages in detail with certainty.

There is no claim that the results in the relatively small sample of rural children aged six to eighteen years examined is representative of all rural Haitian children. These were, however, all the children in the schools of the three villages available for study. These villages are typical of the most economically handicapped portions of Haiti. The data for these rural children are presented separately

TABLE II
Number of Rural Haitian Infants

Age (mo.)	Boys	Girls
0	1	2
1	3	7
2	13	10
3	19	14
4	8	15
5	19	11
6	17	15
7	16	11
8	10	8
9	7	5
10	7	10
11	11	15
12	13	12
13	11	17
14	9	10
15	12	5
16	13	14
17	14	12
18	5	13
19	10	8
20	12	8
21	8	11
22	10	6
23	7	6
24	6	9
25	7	2
Total	268	257

from the urban measurements as an illustration of the correlation between socioeconomic status and bodily dimensions. Likewise, where points appear in Figure 4, representing observations on less than twenty subjects (Table II), their accuracy as estimates of a larger population group must be tempered with caution.

Less extensive anthropometric data describing Haitian subjects have been published by us.⁵ These are consistent with the present report in showing distinctly lower stature and weight than measurements made on children in the United States. In addition, the fact that handicaps associated with different socioeconomic status do exist in Haiti is evident from the present report. One of the most obvious handicaps retarding growth and limiting weight in the children from the poor families is grossly inadequate nutrition. The close approximation of the curves from wealthy Haitian children and the Iowa standards suggests little ethnic influence on the stature and weight of the Haitian children.

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