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Anthropometric Data and Prevalence of Overweight for Hispanics: 1982-84

Series 11: Data From the National Health Survey No. 239

This report presents descriptive data for selected anthropometric measurements and provides estimates of overweight and severe overweight by age and sex. This information is from the Hispanic Health and Nutrition Examination Survey, a sample survey of selected groups of civilian noninstitutionalized Hispanic persons residing in the United States, that was conducted during the period 1982-84.

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- - -	Data not available
. . .	Category not applicable
-	Quantity zero
0.0	Quantity more than zero but less than 0.05
Z	Quantity more than zero but less than 500 where numbers are rounded to thousands
*	Figure does not meet standard of reliability or precision

Anthropometric Data and Prevalence of Overweight for Hispanics: 1982–84

by Matthew F. Najjar and Robert J. Kuczmarski, Dr.P.H., Division of Health Examination Statistics

Introduction

From 1960 through 1980 the National Center for Health Statistics (NCHS) conducted five population based, national health examination surveys. A major objective of these surveys has been to record a variety of body measurements that are important in characterizing growth in children and adolescents and in identifying associations with health outcomes in adults. In addition to anthropometric measurements, in each survey other data were collected, using a medical history, a physical examination, and a variety of laboratory and clinical tests and measurements. (For examples, see NCHS, 1965a, 1967, 1969a.) These questionnaire and medical examination components have been designed to support analyses of data on certain targeted conditions such as diabetes, hypertension, and iron deficiency anemia.

Beginning with the first National Health and Nutrition Examination Survey (NHANES I), a major nutritional assessment component was added to the health examination surveys to obtain information on overall nutritional status and dietary practices. This component was designed to enhance the quality and quantity of anthropometric, biochemical, clinical, and dietary data as they pertain to nutritional status.

Both the NHANES I and its successor, the NHANES II, conducted from 1976 through 1980, focused on a national sample of the U.S. population. The numbers of Hispanic and other ethnic groups in these samples, however, were insufficient to enable adequate estimation of their health and nutritional status. Therefore, from 1982 through 1984, a Hispanic Health and Nutrition Examination Survey (HHANES) was conducted to obtain data on the health and nutritional status of the three largest Hispanic subgroups residing in households in distinct geographic areas of the United States: Mexican Americans in selected counties in five Southwest States—Texas, Colorado, New Mexico, Arizona, and California; Cubans from Dade County (Miami), Florida; and Puerto Ricans from the New York City area, including parts of New York, New Jersey, and Connecticut (NCHS, 1985). Although HHANES was not intended to be a national probability sample, it is the first large-scale study of the health examination surveys covering the health and nutritional status of the three Hispanic subgroups.

The survey design of HHANES was a stratified, multistage, probability cluster sample of civilian noninstitutionalized persons ages 6 months through 74 years residing in households in three defined geographic areas of the United States. Even though HHANES was not designed as a national Hispanic survey, and no national estimates for the Hispanic population can be made, the three HHANES universes include approximately 76 percent of the 1980 Hispanic-origin population in the United States. More detail on the sample design and conduct of the survey is presented in appendix I.

Through the years, some anthropometric measures have remained in the health examination surveys while others have been deleted or added. The most recent body measurement data from NHANES II have been published (NCHS, 1987) for weight, standing and sitting heights, crown-rump and recumbent lengths, triceps and subscapular skinfolds, midupper arm, chest (erect and supine), and head circumferences, and bitrochanteric and elbow breadths. These measurements were retained in HHANES, and the following were added: Iliac crest and medial calf skinfolds, maximal calf circumference, and biacromial and biiliac breadths.

The health examinations, including the body measures, were conducted by highly trained teams of health personnel in specially equipped Mobile Examination Centers (MEC's). Both the MEC's and the procedures were standardized, and carefully calibrated equipment was used in taking the measurements.

Despite these efforts to reduce measurement errors, users should be aware that technician differences do exist. Users are encouraged to consider these differences when using the elbow breadth and skinfold measurements. (See "Sources of data and analytical issues.")

Data in this report are presented for each of the anthropometric measures for each Hispanic subgroup by year of age for children and adolescents and by 10-year age groups for adults. In addition, distributions are given for a derived variable, Body Mass Index, along with estimates for the percents of overweight and severely overweight adults. Because of an insufficient sample size, the 5th and 95th percentile values for Cuban adults are missing for most age groups. In the age groups 6 months–19 years for Cubans,

statistics have also been excluded because they did not meet the NCHS requirements for reliability or precision. For Puerto Ricans the 5th, 10th, 90th, and 95th percentiles were excluded for similar reasons (see appendix II).

There is a substantial body of literature documenting variation in body size, shape, and rate of maturation among children in different populations (Eveleth, 1978; Eveleth and Tanner, 1976; Robson, et al., 1975; Tanner, 1976). Such differences may be important in evaluating the growth and nutritional status of different ethnic groups in the United States, as there is evidence that body dimensions may differ for black, white, native American, and Hispanic groups in this country (Habicht et al., 1974; Harrison and White, 1980; Meaney, 1977; Owen and Lubin, 1973). Notable variations in body dimensions across ethnic groups for persons of comparable age and sex may be attributable to a combination of factors, including genetic, environmental, and socioeconomic characteristics. This report does not attempt to explain differences that may occur in body measurement distributions among the three ethnic groups. Instead, the tables are descriptive, presenting means and percentiles for youths and adults. Also, estimates for the prevalence of overweight and severely overweight are given only for adults aged 20–74 years.

The anthropometric data from this survey have been coded, edited, and released on microdata tape (PB. No. 87–152757). Persons interested in more detailed analysis can purchase this tape from the National Technical Information Service, Springfield, Virginia.

Sources of data and analytical issues

Sources

The Hispanic Health and Nutrition Examination Survey (HHANES), conducted from July 1982 through December 1984, is the most recent in a series of health examination surveys conducted by NCHS. The major difference between HHANES and the previous health examination surveys is that HHANES was a survey of three special subgroups of the population in selected areas of the United States rather than a national probability sample. The target population for HHANES ideally would have included all households with at least one member of Hispanic origin. However, the United States includes States and counties with very small numbers or proportions of Hispanic persons. Therefore, HHANES was restricted to those counties in the three target areas of the country that had a sufficient number or proportion of Hispanic persons to permit the efficient operation of the survey. Thus 97 percent of the 1980 Mexican-American population in the five Southwest States, 96 percent of the Cuban population in the Dade County area, and 90 percent of the Puerto Rican population in the New York City area were eligible for inclusion in HHANES.

Selected households were screened to identify eligible Hispanic families and to select sample persons from these families to be interviewed and examined. Eligibility for the survey was determined by the family unit. A family was considered eligible if at least one family member's reported national origin or ancestry met the criteria for eligibility appropriate to the survey location. These criteria were as follows:

Survey area	*National origin or ancestry*
Southwest area	Mexican or Mexicano, Mexican American, Chicano, Hispano, Spanish-American or Spanish (when no other country of origin was mentioned)
Dade County, Fla., area	Cuban or Cuban-American
New York City area	Puerto Rican or Boricuan

In cases where multiple origins were reported for the same individual on different questionnaires, the person was considered eligible if any one of the reported origins met these criteria.

If a family was eligible for the survey, all members of that family were eligible to be selected for the interview and examination components. Therefore, some non-Hispanic persons residing in Hispanic households and some Hispanic persons not meeting the above criteria were selected and examined in each of the three geographic areas. For this report, however, all findings are based on the examined persons within the households who were defined as being of Mexican origin or ancestry in the Southwest, of Cuban origin or ancestry in Dade County, Fla., and of Puerto Rican origin or ancestry in the New York City area. This report, therefore, excludes persons in the total sample who were non-Hispanic or of an origin that did not meet the eligibility criteria. Appendix III presents a more detailed description of how the Hispanic-origin recode used for this report was determined.

The text table shows the sample sizes and response rates for each of the three survey areas in HHANES. The results are presented for both the total sample (including non-Hispanic persons) and for the specific-origin sample as explained above.

Sample size and response rates by survey area and specified Hispanic origin: Hispanic Health and Nutrition Examination Survey, 1982–84

Survey area and Hispanic origin[1]	*Sample size*	*Interviewed*		*Examined*	
		Number	*Percent*	*Number*	*Percent*
Southwest area					
All persons	9,894	8,554	86.5	7,462	75.4
Mexican American	9,455	8,222	87.0	7,197	76.1
Dade County, Fla. area					
All persons	2,244	1,766	78.7	1,357	60.5
Cuban	2,125	1,677	78.9	1,291	60.8
New York City area					
All persons	3,786	3,369	89.0	2,834	74.9
Puerto Rican	3,525	3,137	89.0	2,645	75.0

[1]See appendix III for the definition of Hispanic origin.

HHANES, like previous examination surveys, consisted of two major components. Household interviews formed the first component; the second consisted of physical examinations and additional interviews in examination centers. All interviews, examinations, tests, procedures, and laboratory determinations were performed following standardized protocols.

The household interview component involved collecting socioeconomic and demographic information from the family and sample persons within the family and completing a medical history questionnaire for sample persons. Interviewers employed by the contract agency conducting the HHANES performed the initial household interviews and aided in the scheduling of appointments for examination.

The examination component was performed in mobile examination centers specially designed for this study. The examination environment and equipment were standardized to minimize differences in findings among sample locations. The full-time examination teams were specifically trained to follow the study protocols, which provided for standardization, quality control, and evaluation of team members' performance. The examination consisted of a series of standardized tests and procedures that included the following:

- General medical examination and screening by a physician, including additional medical history information.
- Body measurements.
- Dietary interview.
- Selected diagnostic tests such as electrocardiograms, x rays, hearing, and diagnostic ultrasound for detection of gallstones.
- Laboratory tests on whole blood, serum, and urine specimens.

Thus, HHANES provided the opportunity to assess key aspects of the Hispanic population's health and nutritional status during a 2½-year period and to collect baseline data that could be used to assess changes over time in selected Hispanic subgroups living in the United States.

Methods of measurement

HHANES was staffed with two highly trained examination teams and equipped with three mobile examination centers, which could be moved to a central location in each of the primary sampling units. Selected sample persons for whom appointments could be made were brought into the examination centers. There, examinees changed from their street clothing into disposable paper examination gowns and foam rubber slippers designed to facilitate and standardize various elements of the examination.

Body measurements were made at various times of the day and in different seasons of the year; thus potential diurnal and seasonal variations in body measurements were not standardized. Weight may vary between winter and summer and may fluctuate with recency of food and water intake and other daily activities.

When possible, measurements of elbow breadth, midupper arm and maximal calf circumferences, and skinfolds were taken on the right side of the body. Left-side measurements were done on a systematic sample of approximately 20 percent of the examined persons. These left-side measurements were collected for quality control purposes and were not intended to be representative of the Hispanic population. Left-side measurements were also taken if the right side could not be used because of casts, amputations, or other reasons.

The examination protocol included training and periodic retraining of examiners by a supervisor and consultant, as well as an ongoing system of quality control procedures to reduce variability introduced by errors of measurement. Despite efforts to reduce measurement errors, residual errors of a magnitude large enough to warrant concern occur in any anthropometric survey. In the HHANES, for example, systematic examiner differences were observed for triceps, subscapular, iliac crest, and medial calf skinfolds, as well as elbow breadth. The range of differences in mean body measurement values between examiners varied from 4 millimeters for elbow breadth to 5–9 millimeters for the skinfold measurements. Preliminary analysis of the data suggests that the differences may be attributable to a drift from standardized techniques associated with the use of multiple trainers for the technician teams. The use of multiple examiners is a trade off: It increases the variability of the distribution (because of interexaminer errors of measurement) but it minimizes the effect of an individual examiner bias. Furthermore, reliability is known to be less for skinfolds of more than 30 millimeters than for skinfolds smaller than that (Mueller and Martorell, 1985). The recording form used in HHANES is given in appendix IV.

The procedures used for the body measurements included in this report are briefly described here. Detailed explanations are given in appendix V.

Standing height

Standing height was measured with the examinee wearing disposable foam rubber slippers, standing erectly with feet together, back and heels against the upright bar of the height scale, and head approximately in the Frankfort horizontal plane. Assistance and demonstration were provided when necessary ("look straight ahead," "stand up tall," or "stand up real straight"). The examiner exerted gentle upward pressure on the subject's mastoid process.

The equipment consisted of a level platform, to which was attached a vertical bar with a steel tape. Attached perpendicularly to the vertical bar was a horizontal measuring bar, which was brought down snugly on the examinee's head. A Polaroid[a] camera was attached to another sliding bar in the same plane as the horizontal measuring bar. The camera recorded the subject's identification number next to the pointer on the scale, thereby giving a precise reading. The camera not only gave a permanent record, minimizing observer and recording errors, but, by always being in the same plane as the measuring bar, completely eliminated parallax. (An observer reading a pointer in the space in front of the scale could read it too high if looking up at the scale from below or too low if reading down from above.)

[a]Mention of brand name is for the purpose of specific identification of the equipment or product used and does not imply endorsement by the U.S. Department of Health and Human Services.

Weight

Examinees were weighed on a Toledo[b] self-balancing scale that mechanically printed weight (exact to quarter-pound intervals) directly onto the permanent record. Direct printing was used to minimize observer and recording errors. The scale was calibrated with a set of known weights, and any necessary fine adjustments were made at the beginning of each new examination location, approximately every month. The weight of the standard garments worn ranged from 0.20 to 0.62 pound and was not deducted from weights presented in this report. Thus, weights shown here are 0.20 to 0.62 pound above nude weight recorded to the nearest quarter-pound. The same examination clothing was used throughout the year, thus eliminating seasonal variation.

Skinfolds

As recommended by the Committee on Nutritional Anthropometry, Food and Nutrition Board, National Research Council (1956), skinfolds were measured with a Lange[c] skinfold caliper.

The measurement of skinfold thickness is one of a number of methods used to determine the body fatness of individuals (Keys and Grande, 1968; Malina, 1969; Owen and Brozek, 1966). In a field survey, the use of skinfold measurements has distinct advantages over more sophisticated laboratory techniques. Skinfold measurements do not require elaborate, expensive, or time-consuming procedures, and they are recommended as an integral element in body composition research, particularly for field studies (Weiner and Lourie, 1969). The skinfold measurement approach involves measuring a double fold of subcutaneous fat plus skin, which is pulled away from the underlying muscle tissue at a predetermined site on the body. It is one of the easiest approaches to estimate body fat.

Breadths, circumferences, and lengths

Four direct anthropometric measures of skeletal structure were taken—elbow, bitrochanteric, biacromial, and biiliac crest breadth. Midupper arm and maximal calf circumferences, composite measures of bone, muscle, and fat, were also included. Head and chest circumferences were included for children 6 months–7 years of age as reference data in identifying early protein-calorie deficiency. Recumbent and crown-rump length were included for children 6 months–3 years of age. See appendix V for further details regarding measurement protocol.

Overweight

"Overweight" was defined as a body mass index (BMI) (weight in kilograms divided by height in meters squared) equal to or greater than that at the 85th percentile of men or women aged 20–29 years from NHANES II, 1976–80. "Severe overweight" was defined as a BMI equal to or greater than that at the 95th percentile from NHANES II, 1976–80. Men are categorized as "overweight" when their BMI equals or exceeds 27.8; they fall into the "severely overweight" category when the index equals or exceeds 31.1. For women, these cutoff points are 27.3 and 32.3, respectively. The rationale for using persons aged 20–29 years as the reference population was that most young adults are relatively lean, and the increase in body weight that usually occurs as men and women age is assumed to be due almost entirely to fat accumulation.

Although the criteria used here for overweight and severe overweight were not derived from the morbidity or mortality experience of the surveyed population, they are fairly consistent with other criteria that do have a basis in morbidity or mortality data. NHANES II was a national probability sample; therefore, its cutoff points at ages 20–29 years for BMI were also used for HHANES data to determine the criterion values for overweight. Furthermore, these criterion values for overweight correspond approximately to 20 percent or more above desirable weights in the 1983 Metropolitan Life Insurance Company (1983, 1984) tables, using the midpoint of the range for a medium-build person. The criterion values of severe overweight correspond approximately to 40 percent or more above the Metropolitan tables' desirable weight. Finally, the National Institutes of Health (1985) Consensus Development Panel has stated that an increase in body weight of 20 percent or more above desirable body weight constitutes an established health hazard.

Analytical issues

Weighting procedures

The estimates presented in this report were weighted for the three separate target populations. The sample weights take into account the different sampling probabilities and adjustments for nonresponse and noncoverage. As a result of these adjustments, the population estimates closely approximate the targeted population at the midpoint of the respective survey period.

Population estimates

Population estimates by age and sex for the three Hispanic subgroups in the three distinct geographic regions—the Mexican Americans in the Southwest United States, the Puerto Ricans in the New York City area, and the Cubans in Miami, Florida—are presented in appendix I. The prevalence estimates shown in the detailed tables can be applied to the population distribution given in tables V and VI of appendix I to obtain the corresponding population estimates. For example, an estimate of 29.6 percent for Mexican-American men ages 20–74 years who are overweight (table 1) when expressed as a proportion and multiplied by the number of men ages 20–74 years (2,583,000 from table VI in appendix I) gives an estimate of 765,000 overweight Mexican-American men in the five Southwest States.

[b,c]Mention of brand name is for the purpose of specific identification of the equipment or product used and does not imply endorsement by the U.S. Department of Health and Human Services.

Reliability of estimates

Estimates of means, standard deviations, and nine selected percentiles (5th, 10th, 15th, 25th, 50th, 75th, 85th, 90th, and 95th) are presented for each measurement. Estimates of percentiles are stable only if the sample size is sufficiently large. The sample size was sufficiently large for most subgroups; exceptions are indicated with an asterisk. See appendix II for a discussion of data presentation and reliability.

Cross-sectional nature of data

The cross-sectional data on body measurements were obtained from persons of different ages who represent different birth cohorts. The age trends show the body measurement values for successive birth cohorts of persons who were of different ages when examined and may reflect the effect of different environmental as well as hereditary influences. The limitations of cross-sectional data in contrast to longitudinal data must be recognized when considering changes with age.

Age of examinee

The chronologic age at the time of interview was the age criterion for inclusion in the sample. The value used as a label for each age group in the tables is the integer referring to age at last birthday at the time of interview. Hence, "10 years" means all children 10.00 through 10.99, years with an approximate mean value of 10.50 years.

Selected findings

Some important anthropometric findings by age, sex, and specified Hispanic origin are summarized below. Comparisons in this report are based on medians because the marked skewness of many of the distributions shown here suggests the use of the median as a better measure of central tendency than the mean. These findings do not constitute an exhaustive attempt to describe all of the data included in this report in tables 1–73. Rather, they are intended to highlight the data that are most frequently requested, including statistics on the distributions of overweight.

The following statements highlight the findings for Mexican- American, Cuban, and Puerto Rican adults and children residing in each of the three major geographic areas studied. The figures are based on Hispanic population estimates at the midpoint of the survey in the three distinct geographic areas: Southwest area (selected counties in Arizona, California, Colorado, New Mexico, and Texas); New York City area (parts of New York, New Jersey, and Connecticut); and Miami, (Dade County).

- Approximately 765,000 (29.6 percent) Mexican-American men, 43,000 (29.4 percent) Cuban men, and 60,000 (25.2 percent) Puerto Rican men were overweight (table 1).
- About 1 million (39.1 percent) Mexican-American women, 62,000 (34.1 percent) Cuban women, and 148,000 (37.3 percent) Puerto Rican women were overweight (table 1).
- Approximately 266,000 (10.3 percent) Mexican-American men, 16,000 (10.6 percent) Cuban men, and 18,000 (7.7 percent) Puerto Rican men were severely overweight (table 2).
- Approximately 398,000 (15.6 percent) Mexican-American women, 14,000 (7.7 percent) Cuban women, and 57,000 (14.4 percent) Puerto Rican women were severely overweight (table 2).
- The median weights for Mexican-American, Cuban, and Puerto Rican men ages 18–74 years were 162.2, 164.8, and 159.5 pounds, respectively. The corresponding figures for women were 139.6, 137.9, and 134.4 pounds, respectively (tables 8 and 10).
- The median heights for Mexican-American men and women ages 18–74 years were 67.1 and 61.8 inches; for Cubans, 67.2 and 61.8 inches; and for Puerto Ricans, 67.2 and 61.7 inches, respectively (tables 16 and 18).
- The median sitting heights for Mexican-American men and women ages 18–74 years were 90.6 and 84.7 centimeters; for Cubans, 90.1 and 84.1 cm; and for Puerto Ricans, 89.7 and 83.8 cm, respectively (tables 26 and 28).
- The median mid-upper arm circumferences for Mexican-American men and women ages 18–74 years were 32.1 and 30.0 cm; for Cubans, 32.1 and 29.8 cm; and for Puerto Ricans, 31.4 and 29.5 cm, respectively (tables 62 and 64).
- The median maximal calf circumferences for Mexican-American men and women ages 18–74 years were 36.2 and 34.9 cm; for Cubans, 36.5 and 34.9 cm; and for Puerto Ricans, 37.2 and 35.5 cm, respectively (tables 66 and 68).
- The median triceps skinfold values for Mexican-American females substantially exceeded those for males after age 11, with differences ranging from 5.0 to 16.5 millimeters (mm). A similar trend was also found for Puerto Ricans with the differences after age 11 ranging from 3.5 to 17.5 mm. Although the insufficient sample of Cuban children ages 6 months–19 years precludes comparison, among Cuban adult, the same trend was exhibited—values for women exceeded those for men, with the differences ranging from 8.5 to 16.5 mm (tables 45–48).
- The median subscapular skinfold values for Mexican-American females exceeded those for males after age 11. The differences ranged from 3.0 to 9.0 mm. For Puerto Ricans, after age 11, the differences ranged from 1.0 to 10.5 mm. For Cuban adults the differences ranged from 2.0 to 9.0 mm (tables 49–52).
- The median iliac crest skinfold values for Mexican-American and Puerto Rican females generally exceeded those for males (tables 53–56).
- The median medial calf skinfold values for Mexican-American females substantially exceeded those for males after age 11 years, with the differences ranging from 3.5 to 15.5 mm. The same was true for Puerto Ricans, with the differences ranging from 5.0 to 13.0 mm. For Cuban adults the differences ranged from 9.0 to 14.5 mm (tables 57–60).
- In the age range 6–74 years, the percent of Mexican-Americans and Cubans reporting they were left-handed tended to decrease with age. However, for Puerto Ricans there was no pattern (tables 72 and 73).

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Table 1. Percent of overweight persons 20-74 years of age and number examined, by specified Hispanic origin, sex, and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Sex and age	Mexican American		Cuban		Puerto Rican	
	Number of examined persons	Percent	Number of examined persons	Percent	Number of examined persons	Percent
Male						
20-74 years	1,454	29.6	376	29.4	443	25.2
20-74, age adjusted 1/	...	31.2	...	28.5	...	25.7
20-24 years	218	15.5	27	*21.2	55	15.8
25-34 years	438	29.2	64	27.9	106	18.9
35-44 years	252	37.2	52	25.8	73	33.4
45-54 years	270	36.9	114	34.6	103	32.9
55-64 years	194	37.5	78	31.7	81	26.4
65-74 years	82	30.3	41	*31.1	25	*31.6
20-29 years 2/	441	20.4	57	23.5	113	15.6
Female						
20-74 years	1,797	39.1	484	34.1	758	37.3
20-74, age adjusted 1/	...	41.5	...	31.9	...	39.8
20-24 years	252	21.9	36	*13.6	108	23.6
25-34 years	510	31.8	73	23.8	168	26.5
35-44 years	333	43.8	95	32.7	155	42.7
45-54 years	361	52.0	119	37.2	177	50.2
55-64 years	223	57.3	97	51.4	97	49.0
65-74 years	118	49.7	64	39.6	53	61.0
20-29 years 2/	514	24.4	67	16.2	192	22.5

1/ Age adjusted by the direct method to the 1980 census population 20-74 years of age using 6 age groups.
2/ Overweight is defined as a sex-specific body mass index (kilograms divided by height in meters squared) equal to or greater than the 85th percentile for examinees 20-29 years of age examined in the second National Health and Nutrition Examination Survey (NHANES II).

NOTES: Excludes pregnant women. See appendix III for the definition of Hispanic origin.

Table 2. Percent of severely overweight persons 20-74 years of age and number examined, by specified Hispanic origin, sex, and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Sex and age	Mexican American		Cuban		Puerto Rican	
	Number of examined persons	Percent	Number of examined persons	Percent	Number of examined persons	Percent
Male						
20-74 years	1,454	10.3	376	10.6	443	7.7
20-74, age adjusted 1/	...	10.8	...	10.3	...	7.9
20-24 years	218	4.3	27	*6.6	55	1.6
25-34 years	438	11.7	64	15.7	106	7.5
35-44 years	252	10.2	52	5.6	73	7.3
45-54 years	270	13.7	114	12.2	103	13.1
55-64 years	194	15.7	78	12.1	81	8.4
65-74 years	82	7.4	41	*5.0	25	*10.2
20-29 years 2/	441	7.4	57	14.9	113	4.4
Female						
20-74 years	1,797	15.6	484	7.7	758	14.4
20-74, age adjusted 1/	...	16.7	...	6.9	...	15.2
20-24 years	252	9.0	36	*2.9	108	10.4
25-34 years	510	11.1	73	3.7	168	7.5
35-44 years	333	17.6	95	9.0	155	18.7
45-54 years	361	24.8	119	10.6	177	18.0
55-64 years	223	20.7	97	9.3	97	19.9
65-74 years	118	21.3	64	7.7	53	23.9
20-29 years 2/	514	9.4	67	1.5	192	8.2

1/ Age adjusted by the direct method to the 1980 census population 20-74 years of age using 6 age groups.
2/ Severe overweight is defined as a sex-specific body mass index (kilograms divided by height in meters squared) equal to or greater than the 95th percentile for examinees 20-29 years of age examined in the second National Health and Nutrition Examination Survey (NHANES II).

NOTES: Excludes pregnant women. See appendix III for the definition of Hispanic origin.

Table 3. Body mass index (kilograms divided by height in meters squared) for males 2-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
2 years	110	16.7	1.4	14.6	15.0	15.3	15.5	16.8	17.6	18.2	18.4	19.4
3 years	131	16.2	1.6	14.2	14.5	14.8	15.1	16.0	16.9	17.3	17.8	18.8
4 years	118	15.9	1.1	14.1	14.6	14.8	15.2	15.7	16.6	16.9	17.2	17.8
5 years	115	15.9	1.9	13.7	14.1	14.3	14.8	15.6	16.5	17.4	17.8	18.9
6 years	109	16.1	2.4	13.7	14.0	14.3	14.6	15.7	16.8	17.5	18.6	20.2
7 years	110	16.7	2.4	14.3	14.6	14.7	15.1	15.9	17.5	18.8	19.5	21.5
8 years	102	17.0	2.8	14.1	14.5	14.9	15.4	16.2	17.8	19.6	20.4	23.6
9 years	106	17.8	3.2	14.4	14.7	15.0	15.6	16.8	19.2	22.2	22.5	23.8
10 years	88	18.5	3.8	*	15.1	15.2	15.5	17.4	21.0	23.1	23.9	*
11 years	115	20.0	4.1	15.5	15.9	16.5	17.1	19.1	21.7	23.5	25.3	27.0
12 years	115	19.6	3.8	16.0	16.1	16.6	17.2	18.4	21.1	22.4	23.3	27.0
13 years	96	20.3	2.9	*	17.5	17.8	18.1	19.6	21.6	22.5	24.3	*
14 years	97	21.4	4.3	*	16.8	17.5	18.3	20.2	23.3	25.4	27.2	*
15 years	69	20.9	3.1	*	17.8	18.1	18.7	20.7	22.3	23.8	24.7	*
16 years	76	22.4	4.1	*	18.3	18.8	19.7	21.4	24.3	25.7	30.3	*
17 years	71	21.8	3.1	*	18.5	19.2	19.7	21.0	24.1	25.6	26.3	*
18 years	63	23.2	4.0	*	19.0	19.7	20.6	22.2	25.3	26.9	29.1	*
19 years	64	24.2	4.6	*	19.4	19.9	21.4	22.7	26.0	29.1	31.5	*
Puerto Rican												
2 years	34	*16.9	1.9	*	*	*	15.8	16.6	17.6	*	*	*
3 years	38	*15.9	1.2	*	*	14.6	14.9	15.4	16.1	17.4	*	*
4 years	41	*16.5	2.1	*	*	14.7	14.9	15.9	17.9	18.9	*	*
5 years	22	*17.6	5.5	*	*	*	15.3	16.0	16.7	*	*	*
6 years	37	*16.6	3.1	*	*	14.4	14.9	15.4	18.0	18.8	*	*
7 years	39	*16.5	2.6	*	*	14.7	14.9	16.1	17.0	18.9	*	*
8 years	41	*17.2	2.8	*	*	15.1	15.4	16.7	18.2	19.8	*	*
9 years	26	*19.2	3.6	*	*	*	16.4	18.6	22.2	*	*	*
10 years	38	*19.6	3.8	*	*	15.0	16.2	18.9	23.3	24.1	*	*
11 years	27	*18.1	2.9	*	*	*	16.0	17.8	20.7	*	*	*
12 years	37	*19.9	4.7	*	*	15.8	16.0	19.3	21.2	25.3	*	*
13 years	39	*20.3	3.5	*	*	17.4	17.9	18.8	21.4	22.8	*	*
14 years	40	*22.0	4.8	*	*	18.2	18.8	20.6	23.0	27.0	*	*
15 years	37	*21.3	4.7	*	*	17.6	17.8	19.5	23.6	27.1	*	*
16 years	43	*24.0	4.7	*	*	19.5	20.4	23.3	25.8	30.4	*	*
17 years	41	*23.0	4.1	*	*	19.3	19.6	21.9	24.9	27.1	*	*
18 years	35	*24.2	4.7	*	*	19.8	21.6	22.9	25.1	29.8	*	*
19 years	25	*22.4	3.4	*	*	*	20.1	21.8	23.7	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 4. Body mass index (kilograms divided by height in meters squared) for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,581	25.9	4.4	19.7	20.7	21.7	23.0	25.5	28.2	29.8	31.2	33.5
18-24 years	345	24.0	4.3	19.2	19.7	20.3	21.2	23.2	26.0	27.9	29.1	31.4
25-34 years	438	26.3	4.6	20.5	21.6	22.3	23.5	25.4	28.4	30.2	31.5	34.1
35-44 years	252	26.6	3.8	20.7	22.1	22.8	24.0	26.6	28.6	29.8	31.2	33.0
45-54 years	270	27.0	3.8	21.0	22.4	23.6	24.6	26.7	29.1	30.8	31.9	33.5
55-64 years	194	27.0	4.3	19.3	21.5	23.1	24.7	26.8	29.5	31.2	32.1	34.6
65-74 years	82	25.8	3.6	*	21.7	22.0	23.1	25.8	28.4	29.8	30.5	*
20-29 years 1/	441	25.0	4.6	19.6	20.3	20.8	22.1	24.3	27.0	28.6	30.1	33.2
Cuban												
18-74 years	404	26.0	4.2	20.0	21.3	22.0	23.3	25.4	28.2	29.8	31.4	33.8
18-24 years	55	24.5	4.5	*	20.2	20.3	21.6	24.0	26.7	27.9	30.0	*
25-34 years	64	26.3	5.1	*	20.3	22.4	23.2	25.4	28.9	31.5	33.7	*
35-44 years	52	26.0	3.1	*	22.2	22.5	23.8	26.0	28.0	28.6	29.3	*
45-54 years	114	26.5	4.1	20.4	21.3	22.3	24.3	25.9	29.0	30.0	31.6	33.8
55-64 years	78	26.2	3.8	*	21.5	22.1	22.9	26.1	28.9	30.4	31.4	*
65-74 years	41	*26.0	3.9	*	*	23.0	23.4	25.6	28.2	29.5	*	*
20-29 years 1/	57	25.8	4.9	*	21.3	21.9	23.0	24.9	27.6	30.0	32.8	*
Puerto Rican												
18-74 years	503	25.5	4.3	19.5	20.3	21.5	22.5	25.5	27.7	29.3	30.4	32.8
18-24 years	115	23.8	3.8	19.1	19.7	20.0	21.3	23.1	26.3	27.1	29.0	30.6
25-34 years	106	24.9	4.3	19.3	19.6	20.6	21.6	24.2	27.2	28.3	29.5	32.8
35-44 years	73	26.9	4.4	*	22.5	22.9	24.1	27.0	28.6	29.8	30.4	*
45-54 years	103	26.8	4.5	19.8	21.6	22.9	24.2	26.7	29.1	30.3	32.7	33.5
55-64 years	81	26.1	3.2	*	22.0	23.1	24.0	25.8	27.8	29.2	30.2	*
65-74 years	25	*26.3	3.6	*	*	*	24.1	26.4	27.9	*	*	*
20-29 years 1/	113	24.3	3.6	19.4	19.9	20.5	21.6	23.7	26.6	28.1	29.5	30.6

1/ Age 20-29 years data shown only for comparison with body mass index data from the second National Health and Nutrition Examination Survey (NHANES II). See NCHS(1987).

NOTE: See appendix III for the definition of Hispanic origin.

Table 5. Body mass index (kilograms divided by height in meters squared) for females 2-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
2 years	116	16.3	1.4	14.5	14.8	15.0	15.5	16.2	17.2	17.6	17.8	18.2
3 years	96	16.0	1.7	*	14.3	14.5	15.1	15.9	16.8	17.5	17.9	*
4 years	96	15.9	1.5	*	14.3	14.5	14.8	15.6	16.5	17.3	18.2	*
5 years	109	15.9	2.3	13.6	13.9	14.3	14.6	15.3	16.7	17.7	18.7	20.1
6 years	118	15.9	2.3	13.3	13.6	13.8	14.4	15.4	16.8	18.0	19.3	21.1
7 years	96	16.6	2.6	*	14.1	14.4	14.7	15.7	17.7	19.0	20.5	*
8 years	107	17.1	3.0	13.8	14.3	14.6	15.3	16.6	18.0	20.1	21.0	21.7
9 years	124	18.2	3.2	13.9	14.5	14.9	15.7	17.8	20.3	21.8	22.4	23.9
10 years	94	18.8	3.6	*	15.0	15.4	16.3	17.9	21.3	22.4	24.2	*
11 years	115	18.9	3.7	14.7	15.1	15.5	16.3	18.0	20.7	22.7	24.2	25.5
12 years	103	20.5	3.9	15.4	16.4	16.8	17.6	19.9	22.9	24.3	25.2	26.8
13 years	87	21.3	3.8	*	17.8	18.1	18.5	20.1	22.8	24.6	27.8	*
14 years	75	22.1	3.5	*	18.0	18.5	19.9	21.6	23.5	24.9	28.0	*
15 years	83	22.2	4.0	*	18.1	18.6	19.1	21.4	24.6	26.5	27.7	*
16 years	96	22.8	5.2	*	18.1	18.8	19.7	21.2	24.6	27.0	29.7	*
17 years	72	22.1	3.4	*	18.3	18.8	19.8	21.5	23.6	26.9	27.9	*
18 years	73	23.2	3.7	*	19.6	19.9	20.4	22.6	24.9	26.9	28.5	*
19 years	69	23.5	4.7	*	19.8	19.9	20.8	22.3	25.2	27.2	27.9	*
Puerto Rican												
2 years	27	*16.5	1.6	*	*	*	15.4	16.6	17.5	*	*	*
3 years	40	*16.1	3.6	*	*	14.3	14.6	15.8	16.3	16.8	*	*
4 years	34	*16.4	2.2	*	*	*	14.9	15.9	17.3	*	*	*
5 years	30	*16.3	1.4	*	*	*	15.2	16.4	17.3	*	*	*
6 years	35	*17.2	2.7	*	*	14.7	15.3	16.7	18.8	20.5	*	*
7 years	39	*16.8	2.9	*	*	14.4	14.8	15.8	18.4	19.9	*	*
8 years	30	*18.7	3.9	*	*	*	14.9	18.3	22.5	*	*	*
9 years	34	*17.2	3.0	*	*	*	15.2	16.6	17.9	*	*	*
10 years	36	*18.5	3.2	*	*	15.4	15.7	18.0	21.7	22.0	*	*
11 years	34	*18.8	3.9	*	*	*	16.0	17.7	22.1	*	*	*
12 years	34	*20.7	5.0	*	*	*	17.7	19.0	21.5	*	*	*
13 years	46	22.2	4.5	*	*	18.3	18.9	20.7	24.7	25.9	*	*
14 years	34	*22.0	3.5	*	*	*	19.1	21.0	23.0	*	*	*
15 years	46	22.4	3.7	*	*	19.5	20.0	21.4	24.1	25.7	*	*
16 years	42	*23.3	4.3	*	*	19.4	20.4	22.3	25.2	27.7	*	*
17 years	35	*22.0	3.9	*	*	18.8	19.3	21.4	25.7	26.7	*	*
18 years	29	*22.4	5.3	*	*	*	19.4	21.1	25.6	*	*	*
19 years	34	*22.1	4.8	*	*	*	19.2	20.5	23.2	*	*	*

NOTES: Excludes pregnant women. Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 6. Body mass index (kilograms divided by height in meters squared) for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,939	26.6	5.7	19.5	20.4	21.1	22.4	25.6	29.6	32.3	34.4	37.8
18-24 years	394	24.3	5.0	18.3	19.5	20.0	20.9	23.1	26.4	28.6	30.5	35.2
25-34 years	510	25.8	5.4	19.2	20.0	20.8	21.9	24.7	28.7	31.2	33.0	36.7
35-44 years	333	27.5	5.5	20.7	21.7	22.1	23.3	26.7	30.2	33.3	35.1	38.2
45-54 years	361	28.6	6.0	21.0	21.9	22.6	24.0	27.6	32.2	34.7	36.8	40.1
55-64 years	223	28.8	5.7	21.5	22.8	23.4	25.3	28.2	31.5	34.2	36.0	40.1
65-74 years	118	27.8	5.0	19.6	21.8	22.5	24.3	27.3	31.2	33.4	35.3	37.1
20-29 years 1/	514	24.8	5.2	18.4	19.5	20.3	21.3	23.6	27.1	29.7	31.4	35.8
Cuban												
18-74 years	501	25.8	4.9	18.5	20.3	21.1	22.7	25.4	28.5	30.7	31.6	33.4
18-24 years	53	22.4	3.9	*	17.6	17.8	19.2	21.9	24.6	26.1	28.2	*
25-34 years	73	24.1	4.3	*	19.0	19.9	21.1	23.5	26.8	29.5	30.6	*
35-44 years	95	26.2	5.0	*	21.0	21.9	22.8	24.9	28.5	31.5	32.2	*
45-54 years	119	27.0	5.1	20.7	22.0	22.8	24.2	26.4	28.7	31.7	32.4	34.5
55-64 years	97	27.7	4.8	*	22.7	23.1	24.3	27.5	30.4	31.3	32.3	*
65-74 years	64	26.7	3.8	*	22.9	23.4	24.5	26.3	29.3	31.0	31.6	*
20-29 years 1/	67	23.1	3.9	*	17.9	18.3	20.5	22.8	25.9	27.3	28.5	*
Puerto Rican												
18-74 years	821	26.1	6.1	18.5	19.5	20.4	21.6	25.1	29.1	31.9	33.9	37.6
18-24 years	171	23.5	5.5	17.8	18.3	18.8	19.6	22.3	26.0	28.9	30.1	35.0
25-34 years	168	24.8	5.6	18.1	19.5	20.2	21.0	23.7	27.6	29.8	31.5	33.2
35-44 years	155	27.6	6.6	20.0	21.3	21.9	23.1	26.1	30.0	34.0	36.8	40.0
45-54 years	177	28.0	5.3	20.6	21.9	23.3	24.5	27.4	30.5	33.7	34.6	37.8
55-64 years	97	28.0	5.7	*	21.2	21.3	23.6	27.2	31.3	33.7	36.5	*
65-74 years	53	28.5	6.1	*	20.2	22.7	24.2	29.0	32.0	33.1	33.9	*
20-29 years 1/	192	24.0	5.6	18.0	18.8	19.1	20.4	22.7	26.6	29.2	30.2	34.4

1/ Age 20-29 years data shown only for comparison with body mass index data from the second National Health and Nutrition Examination Survey (NHANES II). See NCHS(1987).

NOTE: Excludes pregnant women. See appendix III for the definition of Hispanic origin.

Table 7. Weight in pounds for males 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	57	21.3	3.1	*	17.9	18.4	19.4	21.3	22.6	23.3	24.3	*
1 year	105	26.0	4.0	21.0	21.5	22.4	23.7	25.4	27.5	28.8	29.7	33.1
2 years	111	30.9	3.8	24.8	25.8	26.6	28.6	31.0	33.1	34.1	35.2	37.4
3 years	131	34.8	5.0	27.0	28.7	30.4	32.0	34.0	36.9	39.0	40.3	43.9
4 years	118	38.9	4.6	32.4	33.0	34.0	35.7	38.9	41.6	43.1	44.8	47.9
5 years	116	44.0	7.7	34.3	35.7	37.3	39.5	43.1	47.0	50.3	53.6	57.3
6 years	110	49.2	9.7	38.1	39.2	41.1	42.6	47.8	53.8	55.5	59.3	65.3
7 years	110	56.6	11.7	41.8	43.4	44.8	49.7	53.7	63.6	67.4	70.4	78.4
8 years	102	63.0	12.8	50.2	51.2	52.3	54.1	59.8	66.6	71.8	79.3	89.4
9 years	106	71.5	17.5	52.7	54.9	56.9	59.9	66.2	80.3	88.6	92.4	105.3
10 years	88	81.1	22.2	*	58.6	59.7	62.9	76.3	96.1	108.6	114.5	*
11 years	115	95.2	24.9	66.4	69.1	71.9	78.7	89.2	107.3	118.0	126.8	137.0
12 years	115	100.9	24.5	72.1	74.8	78.3	84.1	98.3	109.8	115.5	121.0	168.6
13 years	96	115.5	22.9	*	89.0	91.7	98.9	112.2	127.8	138.5	150.8	*
14 years	97	129.5	28.9	*	96.4	102.2	109.0	125.2	143.2	156.2	165.8	*
15 years	69	131.0	23.6	*	104.8	109.9	115.4	127.8	142.2	150.5	156.8	*
16 years	76	143.6	29.5	*	106.3	118.6	125.6	136.5	155.8	173.6	179.0	*
17 years	71	140.4	21.7	*	115.6	118.6	123.0	135.9	153.9	167.9	171.7	*
18 years	63	147.6	25.1	*	117.0	122.2	129.8	148.9	158.8	168.9	180.3	*
19 years	64	154.4	33.0	*	119.4	125.9	134.3	142.9	167.8	193.9	207.4	*
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	21.4	*	*	*	*
1 year	34	*26.0	4.3	*	*	*	23.4	26.0	28.0	*	*	*
2 years	35	*32.5	4.6	*	*	28.1	29.0	32.6	33.9	35.3	*	*
3 years	38	*34.3	4.5	*	*	29.4	30.5	34.2	36.9	38.3	*	*
4 years	41	*42.4	9.0	*	*	35.4	36.0	40.3	46.4	48.6	*	*
5 years	22	*	*	*	*	*	42.4	44.4	51.4	*	*	*
6 years	37	*53.2	14.1	*	*	42.7	44.3	49.3	55.7	59.7	*	*
7 years	39	*57.9	12.4	*	*	49.0	50.6	53.7	62.3	66.3	*	*
8 years	41	*65.1	15.9	*	*	51.6	54.3	62.1	70.2	85.5	*	*
9 years	26	*79.5	20.6	*	*	*	62.1	73.6	100.7	*	*	*
10 years	38	*91.3	24.2	*	*	65.3	68.3	90.0	119.3	123.9	*	*
11 years	27	*85.5	19.7	*	*	*	70.9	80.1	101.5	*	*	*
12 years	37	*107.4	31.8	*	*	75.3	83.4	104.2	118.8	126.4	*	*
13 years	39	*116.4	29.0	*	*	90.3	96.8	107.7	130.5	141.6	*	*
14 years	40	*135.4	38.0	*	*	105.2	111.4	125.1	144.8	155.9	*	*
15 years	37	*138.6	33.5	*	*	107.3	113.4	131.2	153.9	163.0	*	*
16 years	44	*156.3	34.8	*	*	123.2	129.9	145.6	170.8	195.8	*	*
17 years	42	*150.7	33.8	*	*	122.9	126.0	145.6	167.8	173.7	*	*
18 years	35	*159.3	37.2	*	*	123.0	135.6	150.9	167.5	207.8	*	*
19 years	25	*147.9	21.2	*	*	*	133.2	145.8	164.8	*	*	*

NOTES: Includes clothing weight, estimated as ranging from 0.20 to 0.62 pound. Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 8. Weight in pounds for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,583	166.0	31.3	122.2	130.3	136.2	145.2	162.2	183.0	195.6	204.5	221.6
18-24 years	345	155.3	29.9	117.5	123.4	129.3	136.0	151.5	168.2	182.8	190.0	211.0
25-34 years	438	170.1	33.9	126.7	134.8	139.0	149.2	163.9	185.5	201.6	212.1	231.3
35-44 years	252	170.6	27.8	125.1	137.6	143.6	153.1	170.0	185.6	195.1	204.4	217.5
45-54 years	270	172.5	28.1	128.9	141.8	145.6	153.4	171.3	190.2	200.6	204.7	216.4
55-64 years	195	167.5	29.8	119.5	130.2	135.1	147.0	166.2	187.6	199.2	205.4	214.8
65-74 years	83	158.6	27.7	*	123.9	130.0	139.8	156.7	175.2	188.7	197.3	*
Cuban												
18-74 years	404	167.9	29.6	125.7	133.3	139.9	148.7	164.8	184.5	193.8	205.4	219.7
18-24 years	55	164.1	34.4	*	133.3	137.1	142.3	153.0	176.5	187.0	205.3	*
25-34 years	64	175.2	35.5	*	143.6	148.6	151.2	168.4	193.7	213.6	224.6	*
35-44 years	52	167.4	23.9	*	137.4	140.9	154.8	163.6	183.1	193.8	197.7	*
45-54 years	114	167.4	27.7	125.7	133.0	140.4	149.4	166.7	184.5	190.9	196.8	214.6
55-64 years	78	166.6	25.2	*	132.3	137.2	147.5	167.1	182.7	193.7	197.4	*
65-74 years	41	*161.3	25.3	*	*	138.0	142.5	158.5	180.1	186.7	*	*
Puerto Rican												
18-74 years	503	163.2	30.2	120.7	129.8	135.9	143.9	159.5	179.4	188.1	194.5	209.6
18-24 years	115	156.9	28.8	116.7	124.4	129.8	136.7	154.1	172.0	184.7	195.8	209.7
25-34 years	106	163.9	29.6	122.7	129.8	138.9	143.9	160.1	180.6	189.0	193.9	223.9
35-44 years	73	169.3	34.1	*	136.0	144.1	153.1	169.0	179.4	186.5	194.6	*
45-54 years	103	168.0	31.7	117.1	127.8	141.8	151.0	166.4	188.5	194.0	199.7	211.0
55-64 years	81	158.2	21.9	*	135.3	137.2	143.5	158.3	174.8	181.0	186.1	*
65-74 years	25	*158.3	22.0	*	*	*	143.7	155.3	178.0	*	*	*

NOTES: Includes clothing weight, estimated as ranging from 0.20 to 0.62 pound. See appendix III for the definition of Hispanic origin.

Table 9. Weight in pounds for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	63	19.6	2.7	*	16.8	17.1	17.5	19.2	21.0	22.8	22.9	*
1 year	119	24.4	3.3	19.4	20.5	20.7	21.7	24.0	26.5	28.0	29.1	29.9
2 years	121	28.8	3.8	23.8	24.7	25.6	26.5	28.5	30.4	32.4	33.6	34.6
3 years	97	33.8	5.0	*	28.3	29.0	30.4	33.1	37.0	38.5	39.3	*
4 years	96	38.9	5.9	*	32.8	33.2	34.9	38.8	42.0	44.8	45.3	*
5 years	109	44.1	9.4	34.0	35.9	36.6	38.2	41.7	47.0	51.3	55.2	60.9
6 years	118	48.8	10.1	37.7	39.6	40.2	42.2	45.9	51.1	60.3	62.3	69.5
7 years	96	56.0	13.0	*	43.6	44.0	46.8	52.9	61.0	69.7	76.4	*
8 years	107	62.3	14.9	45.8	47.1	49.2	52.8	59.7	68.0	77.5	80.6	90.6
9 years	125	74.8	17.3	49.7	53.6	55.6	61.7	72.0	85.8	93.4	98.9	107.4
10 years	94	84.5	21.3	*	61.1	65.6	69.9	79.7	96.2	102.6	115.4	*
11 years	115	91.5	23.5	61.2	66.7	70.9	74.4	87.8	107.3	114.9	118.0	132.3
12 years	103	106.2	22.1	76.9	81.4	85.6	89.7	105.0	119.5	126.5	135.5	146.3
13 years	89	115.5	22.0	*	93.7	97.1	100.3	111.1	123.2	134.4	143.6	*
14 years	75	119.6	21.8	*	95.8	98.5	105.0	114.2	130.3	140.7	153.8	*
15 years	85	125.9	23.8	*	100.3	102.5	108.3	122.8	137.7	154.3	160.4	*
16 years	99	126.6	32.6	*	95.4	100.4	108.3	117.6	133.2	155.7	163.5	*
17 years	75	124.1	21.2	*	101.2	106.4	109.0	119.5	136.4	150.3	153.2	*
18 years	77	126.7	20.3	*	102.0	109.4	112.6	124.3	139.0	147.7	152.8	*
19 years	75	132.8	30.3	*	103.1	111.1	114.5	127.1	141.0	153.8	158.7	*
Puerto Rican												
6-11 months	18	*	*	*	*	*	*	20.3	*	*	*	*
1 year	33	*24.8	3.5	*	*	*	21.6	24.8	27.1	*	*	*
2 years	27	*28.9	4.3	*	*	*	26.1	28.2	31.6	*	*	*
3 years	40	*34.2	7.2	*	*	28.7	30.1	33.3	36.5	37.7	*	*
4 years	34	*41.3	7.9	*	*	*	35.5	38.9	45.0	*	*	*
5 years	30	*47.7	6.0	*	*	*	42.5	49.3	53.2	*	*	*
6 years	35	*55.4	11.3	*	*	44.1	45.1	54.8	65.4	69.8	*	*
7 years	39	*58.6	17.4	*	*	45.1	50.0	51.8	67.2	73.7	*	*
8 years	30	*72.3	19.6	*	*	*	54.7	65.9	86.9	*	*	*
9 years	34	*73.2	18.1	*	*	*	60.4	70.8	74.7	*	*	*
10 years	36	*83.7	18.5	*	*	61.3	71.1	80.4	96.1	105.8	*	*
11 years	34	*92.9	24.0	*	*	*	79.9	91.0	111.7	*	*	*
12 years	34	*110.5	31.5	*	*	*	89.1	101.7	124.3	*	*	*
13 years	46	122.5	27.3	*	*	99.0	106.5	112.9	138.7	148.4	*	*
14 years	35	*121.1	18.7	*	*	101.7	108.0	114.7	131.3	141.3	*	*
15 years	46	125.6	22.3	*	*	105.3	109.4	119.8	136.9	149.4	*	*
16 years	43	*131.2	26.6	*	*	107.3	109.5	127.1	143.0	156.8	*	*
17 years	38	*126.7	25.9	*	*	97.9	108.3	123.8	149.3	152.9	*	*
18 years	37	*130.0	32.5	*	*	99.3	108.7	122.7	142.0	152.7	*	*
19 years	35	*125.8	26.7	*	*	105.1	108.8	120.0	134.3	137.4	*	*

NOTES: Includes clothing weight, estimated as ranging from 0.20 to 0.62 pound. Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 10. Weight in pounds for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,014	144.4	31.5	103.4	110.2	114.6	121.8	139.6	160.5	174.1	187.4	204.4
18-24 years	430	134.6	29.0	98.8	104.4	109.2	115.6	130.9	147.7	158.6	168.2	189.9
25-34 years	541	142.3	30.7	101.9	109.8	113.5	120.4	137.7	159.0	171.3	178.8	204.4
35-44 years	341	149.5	32.0	108.0	113.6	119.5	126.1	144.3	165.3	180.7	197.5	209.4
45-54 years	361	153.2	32.3	110.1	117.0	120.4	130.5	148.0	173.8	186.8	195.7	214.3
55-64 years	223	153.4	31.6	111.1	120.5	124.6	133.6	149.2	167.8	181.9	196.4	211.2
65-74 years	118	144.3	28.1	97.8	107.3	116.4	125.9	142.6	162.1	173.8	184.7	190.7
Cuban												
18-74 years	504	140.4	27.7	100.3	109.1	115.4	121.6	137.9	156.9	166.6	174.8	184.5
18-24 years	55	126.6	25.1	*	97.3	102.5	107.0	124.4	139.4	152.3	162.7	*
25-34 years	74	131.8	25.4	*	99.5	103.9	116.1	133.2	146.5	158.3	167.3	*
35-44 years	95	142.8	27.6	*	113.9	115.8	121.1	135.8	161.3	169.9	176.2	*
45-54 years	119	148.1	28.2	109.5	119.2	123.2	133.2	143.1	162.5	174.8	178.4	186.2
55-64 years	97	147.8	28.7	*	119.6	123.0	130.9	143.1	161.5	166.5	175.7	*
65-74 years	64	139.4	21.0	*	115.7	117.4	126.2	138.8	153.0	161.3	163.6	*
Puerto Rican												
18-74 years	846	141.7	34.1	99.0	106.3	111.2	118.5	134.4	156.6	173.7	189.2	206.1
18-24 years	190	132.2	33.0	96.3	101.7	103.7	110.4	124.4	146.1	160.8	177.3	207.2
25-34 years	172	137.2	31.1	98.9	106.4	110.4	116.0	131.4	149.4	169.0	174.7	193.0
35-44 years	156	148.5	37.8	103.3	112.2	116.8	126.1	137.7	162.4	187.9	201.1	212.7
45-54 years	177	150.1	30.7	108.6	117.0	119.7	129.6	145.8	170.9	180.5	190.3	198.3
55-64 years	98	146.2	29.0	*	113.6	117.5	125.9	142.9	165.1	178.5	187.6	*
65-74 years	53	147.2	35.3	*	104.4	117.9	127.6	145.9	162.7	172.5	192.1	*

NOTES: Includes clothing weight, estimated as ranging from 0.20 to 0.62 pound. See appendix III for the definition of Hispanic origin.

Table 11. Weight in kilograms for males 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	57	9.7	1.4	*	8.1	8.3	8.8	9.7	10.3	10.6	11.0	*
1 year	105	11.8	1.8	9.5	9.8	10.1	10.8	11.5	12.5	13.1	13.5	15.0
2 years	111	14.0	1.7	11.3	11.7	12.1	13.0	14.1	15.0	15.5	16.0	17.0
3 years	131	15.8	2.3	12.3	13.0	13.8	14.5	15.4	16.8	17.7	18.3	19.9
4 years	118	17.7	2.1	14.7	14.9	15.4	16.2	17.6	18.9	19.5	20.4	21.7
5 years	116	20.0	3.5	15.6	16.2	16.9	17.9	19.5	21.3	22.8	24.3	26.0
6 years	110	22.3	4.4	17.3	17.8	18.6	19.3	21.7	24.4	25.2	26.9	29.6
7 years	110	25.7	5.3	19.0	19.7	20.4	22.5	24.4	28.8	30.6	32.0	35.6
8 years	102	28.6	5.8	22.8	23.2	23.7	24.6	27.1	30.2	32.5	35.9	40.5
9 years	106	32.4	8.0	23.9	24.9	25.8	27.1	30.0	36.4	40.3	42.0	47.8
10 years	88	36.8	10.1	*	26.6	27.0	28.5	34.6	43.5	49.3	51.9	*
11 years	115	43.2	11.3	30.1	31.4	32.7	35.7	40.5	48.6	53.5	57.5	62.3
12 years	115	45.8	11.1	32.7	34.0	35.5	38.2	44.6	49.8	52.4	54.9	76.4
13 years	96	52.4	10.4	*	40.4	41.6	44.8	50.9	58.0	62.8	68.4	*
14 years	97	58.7	13.1	*	43.8	46.4	49.4	56.8	65.0	70.8	75.1	*
15 years	69	59.4	10.7	*	47.5	49.8	52.3	57.9	64.6	68.3	71.1	*
16 years	76	65.1	13.4	*	48.2	53.8	57.0	62.0	70.6	78.8	81.1	*
17 years	71	63.7	9.9	*	52.4	53.8	55.8	61.7	69.8	76.1	78.0	*
18 years	63	66.9	11.4	*	53.1	55.4	58.9	67.6	72.0	76.6	81.8	*
19 years	64	70.0	15.0	*	54.1	57.1	60.9	64.8	76.2	87.9	94.1	*
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	9.7	*	*	*	*
1 year	34	*11.8	2.0	*	*	*	10.6	11.8	12.7	*	*	*
2 years	35	*14.7	2.1	*	*	12.8	13.1	14.8	15.4	16.0	*	*
3 years	38	*15.5	2.0	*	*	13.3	13.9	15.5	16.7	17.4	*	*
4 years	41	*19.2	4.1	*	*	16.0	16.4	18.3	21.1	22.0	*	*
5 years	22	*	*	*	*	*	19.2	20.2	23.3	*	*	*
6 years	37	*24.1	6.4	*	*	19.4	20.1	22.4	25.3	27.1	*	*
7 years	39	*26.3	5.6	*	*	22.2	23.0	24.4	28.3	30.1	*	*
8 years	41	*29.5	7.2	*	*	23.4	24.6	28.2	31.9	38.8	*	*
9 years	26	*36.1	9.3	*	*	*	28.2	33.4	45.7	*	*	*
10 years	38	*41.4	11.0	*	*	29.6	31.0	40.8	54.1	56.2	*	*
11 years	27	*38.8	8.9	*	*	*	32.1	36.3	46.0	*	*	*
12 years	37	*48.7	14.4	*	*	34.2	37.8	47.3	53.9	57.3	*	*
13 years	39	*52.8	13.1	*	*	41.0	43.9	48.9	59.1	64.3	*	*
14 years	40	*61.4	17.2	*	*	47.7	50.5	56.8	65.8	70.7	*	*
15 years	37	*62.9	15.2	*	*	48.6	51.4	59.6	69.8	73.9	*	*
16 years	44	*70.9	15.8	*	*	55.9	58.9	66.0	77.4	88.8	*	*
17 years	42	*68.3	15.3	*	*	55.8	57.2	66.1	76.2	78.8	*	*
18 years	35	*72.3	16.9	*	*	55.8	61.5	68.5	76.0	94.3	*	*
19 years	25	*67.1	9.6	*	*	*	60.4	66.2	74.8	*	*	*

NOTES: Includes clothing weight, estimated as ranging from 0.09 to 0.28 kilogram. Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 12. Weight in kilograms for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,583	75.3	14.2	55.5	59.1	61.8	65.8	73.5	83.0	88.7	92.8	100.5
18-24 years	345	70.4	13.6	53.3	56.0	58.6	61.7	68.7	76.3	82.9	86.2	95.8
25-34 years	438	77.2	15.4	57.5	61.1	63.0	67.7	74.3	84.2	91.5	96.3	105.0
35-44 years	252	77.4	12.6	56.8	62.4	65.2	69.4	77.1	84.3	88.5	92.7	98.6
45-54 years	270	78.3	12.8	58.4	64.3	66.0	69.6	77.8	86.2	91.0	92.9	98.2
55-64 years	195	76.0	13.5	54.2	59.1	61.3	66.6	75.4	85.1	90.4	93.2	97.4
65-74 years	83	72.0	12.6	*	56.2	59.0	63.4	71.1	79.5	85.6	89.5	*
Cuban												
18-74 years	404	76.2	13.4	57.0	60.5	63.5	67.5	74.8	83.7	87.9	93.2	99.6
18-24 years	55	74.4	15.6	*	60.5	62.3	64.5	69.4	80.0	84.8	93.1	*
25-34 years	64	79.4	16.1	*	65.2	67.4	68.6	76.5	87.8	96.8	101.9	*
35-44 years	52	75.9	10.8	*	62.3	63.9	70.3	74.3	83.1	87.9	89.6	*
45-54 years	114	75.9	12.6	57.1	60.4	63.7	67.8	75.6	83.7	86.6	89.3	97.3
55-64 years	78	75.6	11.4	*	60.0	62.2	66.9	75.8	82.8	87.9	89.6	*
65-74 years	41	*73.2	11.5	*	*	62.7	64.6	71.9	81.7	84.7	*	*
Puerto Rican												
18-74 years	503	74.0	13.7	54.8	59.0	61.6	65.3	72.4	81.4	85.3	88.3	95.1
18-24 years	115	71.2	13.1	53.0	56.5	58.9	62.0	69.9	78.1	83.7	88.8	95.1
25-34 years	106	74.3	13.4	55.7	58.9	63.0	65.3	72.6	81.9	85.7	87.9	101.6
35-44 years	73	76.8	15.5	*	61.7	65.3	69.4	76.8	81.5	84.6	88.3	*
45-54 years	103	76.2	14.4	53.1	57.9	64.4	68.5	75.4	85.5	88.0	90.6	95.7
55-64 years	81	71.8	9.9	*	61.5	62.2	65.1	71.8	79.3	82.1	84.4	*
65-74 years	25	*71.8	10.0	*	*	*	65.2	70.4	80.8	*	*	*

NOTES: Includes clothing weight, estimated as ranging from 0.09 to 0.28 kilogram. See appendix III for the definition of Hispanic origin.

Table 13. Weight in kilograms for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	63	8.9	1.2	*	7.6	7.8	8.0	8.7	9.5	10.3	10.4	*
1 year	119	11.0	1.5	8.8	9.3	9.4	9.8	10.9	12.0	12.7	13.2	13.6
2 years	121	13.1	1.7	10.8	11.2	11.6	12.0	12.9	13.8	14.7	15.3	15.7
3 years	97	15.3	2.3	*	12.8	13.1	13.8	15.0	16.8	17.5	17.8	*
4 years	96	17.7	2.7	*	14.9	15.1	15.8	17.6	19.1	20.4	20.6	*
5 years	109	20.0	4.3	15.4	16.3	16.6	17.3	18.9	21.3	23.3	25.1	27.6
6 years	118	22.1	4.6	17.1	18.0	18.3	19.2	20.8	23.2	27.3	28.3	31.5
7 years	96	25.4	5.9	*	19.8	20.0	21.3	24.0	27.6	31.6	34.6	*
8 years	107	28.2	6.7	20.8	21.4	22.3	23.9	27.0	30.9	35.2	36.5	41.1
9 years	125	33.9	7.9	22.5	24.3	25.3	28.0	32.7	38.9	42.4	44.8	48.7
10 years	94	38.3	9.6	*	27.7	29.8	31.7	36.1	43.7	46.5	52.3	*
11 years	115	41.5	10.7	27.8	30.3	32.1	33.8	39.9	48.7	52.1	53.5	60.0
12 years	103	48.2	10.0	34.9	37.0	38.8	40.7	47.6	54.2	57.4	61.5	66.3
13 years	89	52.4	10.0	*	42.5	44.0	45.5	50.4	55.8	61.0	65.2	*
14 years	75	54.3	9.9	*	43.5	44.7	47.6	51.8	59.1	63.8	69.8	*
15 years	85	57.1	10.8	*	45.5	46.5	49.1	55.7	62.4	70.0	72.7	*
16 years	99	57.4	14.8	*	43.3	45.5	49.1	53.3	60.4	70.6	74.2	*
17 years	75	56.3	9.6	*	45.9	48.3	49.4	54.2	61.9	68.1	69.5	*
18 years	77	57.5	9.2	*	46.3	49.7	51.1	56.4	63.0	67.1	69.3	*
19 years	75	60.2	13.7	*	46.8	50.3	51.9	57.7	64.0	69.8	72.1	*
Puerto Rican												
6-11 months	18	*	*	*	*	*	*	9.2	*	*	*	*
1 year	33	*11.2	1.6	*	*	*	9.8	11.3	12.3	*	*	*
2 years	27	*13.1	2.0	*	*	*	11.9	12.8	14.4	*	*	*
3 years	40	*15.5	3.3	*	*	13.0	13.7	15.1	16.5	17.1	*	*
4 years	34	*18.7	3.6	*	*	*	16.1	17.6	20.4	*	*	*
5 years	30	*21.6	2.7	*	*	*	19.3	22.4	24.1	*	*	*
6 years	35	*25.1	5.1	*	*	20.0	20.5	24.9	29.7	31.6	*	*
7 years	39	*26.6	7.9	*	*	20.4	22.7	23.5	30.5	33.5	*	*
8 years	30	*32.8	8.9	*	*	*	24.8	29.9	39.5	*	*	*
9 years	34	*33.2	8.2	*	*	*	27.4	32.1	33.9	*	*	*
10 years	36	*38.0	8.4	*	*	27.8	32.3	36.4	43.6	48.0	*	*
11 years	34	*42.1	10.9	*	*	*	36.3	41.3	50.6	*	*	*
12 years	34	*50.1	14.3	*	*	*	40.4	46.2	56.4	*	*	*
13 years	46	55.6	12.4	*	*	44.9	48.3	51.2	62.9	67.3	*	*
14 years	35	*54.9	8.5	*	*	46.2	49.0	52.0	59.6	64.0	*	*
15 years	46	57.0	10.1	*	*	47.8	49.6	54.4	62.1	67.8	*	*
16 years	43	*59.5	12.1	*	*	48.7	49.7	57.7	64.9	71.1	*	*
17 years	38	*57.5	11.8	*	*	44.4	49.1	56.1	67.8	69.3	*	*
18 years	37	*59.0	14.7	*	*	45.0	49.3	55.7	64.5	69.2	*	*
19 years	35	*57.0	12.1	*	*	47.7	49.4	54.5	61.0	62.4	*	*

NOTES: Includes clothing weight, estimated as ranging from 0.09 to 0.28 kilogram. Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 14. Weight in kilograms for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,014	65.5	14.3	46.9	50.0	52.0	55.3	63.3	72.9	79.0	84.9	92.8
18-24 years	430	61.1	13.2	44.8	47.3	49.5	52.4	59.4	67.1	72.1	76.3	86.1
25-34 years	541	64.6	13.9	46.3	49.8	51.5	54.6	62.4	72.1	77.7	81.0	92.8
35-44 years	341	67.8	14.5	49.0	51.5	54.3	57.2	65.5	75.0	82.0	89.5	94.9
45-54 years	361	69.5	14.7	50.0	53.1	54.6	59.2	67.1	78.8	84.8	88.8	97.3
55-64 years	223	69.6	14.3	50.4	54.7	56.5	60.7	67.7	76.2	82.5	89.1	95.8
65-74 years	118	65.4	12.7	44.3	48.7	52.8	57.1	64.7	73.5	78.8	83.9	86.5
Cuban												
18-74 years	504	63.7	12.6	45.5	49.5	52.3	55.2	62.5	71.1	75.6	79.3	83.8
18-24 years	55	57.4	11.4	*	44.2	46.5	48.5	56.5	63.3	69.0	73.8	*
25-34 years	74	59.8	11.5	*	45.1	47.1	52.7	60.4	66.5	71.8	75.9	*
35-44 years	95	64.8	12.5	*	51.7	52.5	54.9	61.6	73.1	77.1	80.0	*
45-54 years	119	67.2	12.8	49.7	54.0	55.8	60.4	64.9	73.8	79.3	81.0	84.5
55-64 years	97	67.0	13.0	*	54.3	55.8	59.4	64.9	73.3	75.5	79.7	*
65-74 years	64	63.3	9.5	*	52.5	53.2	57.3	63.0	69.4	73.3	74.2	*
Puerto Rican												
18-74 years	846	64.3	15.4	44.9	48.3	50.5	53.8	61.0	71.0	78.8	85.8	93.4
18-24 years	190	60.0	14.9	43.7	46.2	47.1	50.1	56.4	66.3	72.9	80.4	94.0
25-34 years	172	62.3	14.1	44.9	48.3	50.1	52.6	59.6	67.8	76.7	79.2	87.6
35-44 years	156	67.4	17.2	46.8	50.9	53.0	57.2	62.4	73.7	85.2	91.2	96.6
45-54 years	177	68.1	13.9	49.3	53.1	54.3	58.8	66.2	77.6	81.9	86.3	90.0
55-64 years	98	66.3	13.1	*	51.5	53.3	57.1	64.8	74.9	81.0	85.1	*
65-74 years	53	66.7	16.0	*	47.3	53.5	57.8	66.2	73.8	78.2	87.0	*

NOTES: Includes clothing weight, estimated as ranging from 0.09 to 0.28 kilogram. See appendix III for the definition of Hispanic origin.

Table 15. Height in inches for males 2-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
2 years	110	36.0	1.6	33.5	33.9	34.3	35.0	36.1	36.9	37.6	38.1	38.7
3 years	131	38.8	1.9	35.3	35.9	36.7	37.6	39.2	40.1	40.8	41.1	41.6
4 years	118	41.4	1.9	38.5	39.1	39.4	40.1	41.3	42.8	43.8	44.0	44.6
5 years	115	44.1	2.1	40.7	41.3	41.9	42.7	43.9	45.5	46.3	46.7	47.8
6 years	109	46.4	2.1	42.9	43.3	44.1	45.2	46.5	47.7	48.5	48.9	49.6
7 years	110	48.6	2.3	44.4	45.4	46.1	47.0	48.8	50.3	50.9	51.7	52.2
8 years	102	50.9	1.8	48.1	48.9	49.2	49.6	50.6	52.3	52.8	53.5	54.1
9 years	106	52.9	2.6	49.4	49.9	50.3	50.9	52.4	54.1	55.6	56.5	58.2
10 years	88	55.1	2.7	*	51.6	52.1	53.2	55.1	57.3	57.8	58.2	*
11 years	115	57.6	2.7	53.3	54.3	54.6	55.7	57.6	59.6	60.7	61.1	61.7
12 years	115	60.0	3.0	55.3	56.1	56.9	57.8	59.7	62.0	63.6	64.1	64.9
13 years	97	63.2	3.2	*	59.2	59.8	61.1	63.4	65.2	66.8	67.1	*
14 years	97	65.2	2.8	*	61.6	62.1	63.3	65.5	67.0	68.1	68.6	*
15 years	69	66.3	2.9	*	62.4	63.6	64.4	66.5	68.4	69.0	69.9	*
16 years	76	67.0	2.6	*	63.8	64.1	65.0	67.4	68.7	69.4	70.1	*
17 years	71	67.3	2.7	*	64.1	64.5	65.5	67.4	69.1	69.7	70.6	*
18 years	63	66.9	2.3	*	64.4	64.6	65.1	66.1	68.3	68.9	69.7	*
19 years	64	66.8	2.2	*	65.0	65.1	65.7	66.3	68.1	69.6	70.1	*
Puerto Rican												
2 years	34	*36.8	2.1	*	*	*	35.0	37.0	38.0	*	*	*
3 years	38	*39.2	1.9	*	*	37.4	37.6	39.0	40.3	41.0	*	*
4 years	41	*42.3	2.4	*	*	40.4	41.1	42.2	43.3	44.1	*	*
5 years	22	*	*	*	*	*	44.0	44.6	45.7	*	*	*
6 years	37	*47.2	2.0	*	*	45.4	45.7	46.9	48.7	49.7	*	*
7 years	39	*49.5	2.9	*	*	46.5	48.0	49.1	51.4	53.3	*	*
8 years	41	*51.2	2.5	*	*	48.5	49.4	50.8	52.6	54.3	*	*
9 years	26	*53.5	2.5	*	*	*	51.1	53.7	55.7	*	*	*
10 years	38	*56.9	2.8	*	*	53.7	54.6	56.6	59.0	60.1	*	*
11 years	27	*57.3	2.9	*	*	*	55.3	57.7	59.8	*	*	*
12 years	37	*61.2	3.0	*	*	57.6	59.6	61.3	63.1	64.3	*	*
13 years	39	*63.1	3.4	*	*	59.3	60.2	63.1	65.5	67.2	*	*
14 years	40	*65.5	2.9	*	*	63.0	63.7	65.1	67.3	67.7	*	*
15 years	37	*67.5	3.0	*	*	65.2	65.7	66.8	70.1	71.1	*	*
16 years	43	*67.7	2.5	*	*	65.0	66.0	67.9	70.0	70.5	*	*
17 years	41	*67.5	2.9	*	*	64.1	65.9	67.8	69.3	70.2	*	*
18 years	35	*67.8	2.9	*	*	65.6	66.6	68.0	70.1	70.5	*	*
19 years	25	*68.2	2.8	*	*	*	65.4	68.6	70.0	*	*	*

NOTES: Height without shoes. Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 16. Height in inches for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,581	67.1	2.7	62.9	63.8	64.3	65.3	67.1	68.8	69.7	70.5	71.6
18-24 years	345	67.4	2.7	63.0	64.0	64.6	65.5	67.3	69.1	70.1	71.1	72.3
25-34 years	438	67.3	2.7	63.2	64.0	64.5	65.4	67.2	69.0	69.9	71.0	72.0
35-44 years	252	67.1	2.5	63.1	64.0	64.5	65.5	67.0	68.6	69.6	70.2	71.6
45-54 years	270	66.9	2.4	62.6	63.5	64.4	65.6	67.0	68.6	69.4	70.0	70.7
55-64 years	194	66.1	2.4	62.1	62.9	63.6	64.5	66.1	67.5	68.3	69.4	70.1
65-74 years	82	65.6	2.9	*	61.9	63.1	63.8	65.6	67.2	68.8	69.2	*
Cuban												
18-74 years	404	67.4	2.6	63.2	64.3	64.8	65.6	67.2	69.1	70.0	70.7	72.0
18-24 years	55	68.5	2.3	*	65.5	66.4	66.9	68.1	69.8	71.8	72.1	*
25-34 years	64	68.4	2.5	*	64.8	65.7	66.6	68.5	70.2	71.1	72.0	*
35-44 years	52	67.3	2.5	*	64.6	65.1	65.7	67.1	68.6	69.6	70.1	*
45-54 years	114	66.6	2.3	62.7	63.8	64.1	65.4	66.5	68.0	69.2	69.8	70.6
55-64 years	78	66.8	2.3	*	63.6	64.2	65.1	66.8	68.6	69.6	70.0	*
65-74 years	41	*66.0	2.6	*	*	63.6	64.4	65.6	67.7	69.0	*	*
Puerto Rican												
18-74 years	504	67.0	2.7	62.2	63.6	64.2	65.1	67.2	69.0	69.8	70.3	71.2
18-24 years	115	67.9	2.6	64.0	64.5	65.1	66.4	68.0	69.8	70.5	71.2	72.2
25-34 years	106	68.0	2.4	63.6	64.9	65.2	66.2	68.4	69.5	70.2	71.0	71.8
35-44 years	73	66.4	2.2	*	63.8	64.4	65.1	66.5	68.0	68.6	69.1	*
45-54 years	104	66.3	2.7	62.3	63.1	63.6	64.3	66.5	68.6	69.2	69.5	70.1
55-64 years	81	65.3	2.6	*	62.0	62.6	63.3	65.3	66.7	68.0	68.6	*
65-74 years	25	*65.1	2.8	*	*	*	62.1	64.9	67.4	*	*	*

NOTES: Height without shoes. See appendix III for the definition of Hispanic origin.

Table 17. Height in inches for females 2-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
2 years	116	35.1	1.5	32.6	33.3	33.7	34.2	35.2	36.2	36.8	37.0	37.1
3 years	97	38.5	1.8	*	35.5	36.5	37.1	38.7	40.0	40.3	40.8	*
4 years	96	41.4	1.9	*	38.7	38.8	40.2	41.4	42.8	43.3	43.6	*
5 years	109	44.0	2.1	40.6	41.2	41.9	42.5	44.0	45.3	45.8	46.6	47.3
6 years	118	46.3	2.0	43.0	44.0	44.7	45.2	46.1	47.4	48.2	48.9	49.6
7 years	96	48.5	2.3	*	45.7	46.0	46.9	48.4	49.6	50.5	51.1	*
8 years	107	50.3	2.6	46.7	47.2	48.0	48.6	50.4	52.0	53.0	53.7	54.9
9 years	124	53.6	2.5	49.7	50.1	50.9	51.9	53.7	55.3	56.3	57.0	57.4
10 years	94	55.9	2.6	*	52.3	52.9	54.2	55.4	57.8	58.3	59.1	*
11 years	115	58.0	3.2	52.5	53.4	54.8	55.9	58.0	60.1	61.4	62.0	62.7
12 years	103	60.2	2.2	56.4	57.1	58.4	59.1	60.3	61.5	62.3	62.6	64.1
13 years	89	61.7	2.1	*	58.9	59.6	60.1	62.0	63.1	64.0	64.5	*
14 years	75	61.6	2.1	*	59.3	59.3	60.2	61.9	63.1	63.7	64.1	*
15 years	85	63.1	2.2	*	60.3	61.0	61.8	63.0	64.6	66.0	66.1	*
16 years	99	62.2	2.9	*	58.8	59.5	60.3	62.3	64.1	64.6	65.1	*
17 years	75	62.5	2.2	*	59.7	60.6	61.2	62.5	63.6	64.5	65.2	*
18 years	77	62.1	2.2	*	58.9	59.3	60.8	62.4	63.6	64.5	64.7	*
19 years	75	62.7	2.3	*	59.8	60.5	61.3	62.9	64.1	65.0	65.7	*
Puerto Rican												
2 years	27	*35.0	1.6	*	*	*	33.8	34.6	36.0	*	*	*
3 years	40	*38.6	1.5	*	*	36.7	37.8	38.4	39.6	40.1	*	*
4 years	34	*42.0	1.8	*	*	*	40.7	41.7	43.4	*	*	*
5 years	30	*45.3	1.9	*	*	*	43.9	45.0	46.1	*	*	*
6 years	35	*47.5	2.0	*	*	45.6	46.1	47.4	48.9	49.2	*	*
7 years	39	*49.1	3.0	*	*	46.1	46.8	48.7	50.4	53.1	*	*
8 years	30	*51.8	2.5	*	*	*	50.0	51.9	53.4	*	*	*
9 years	34	*54.4	3.4	*	*	*	52.4	53.7	55.4	*	*	*
10 years	36	*56.2	3.1	*	*	52.2	53.3	56.3	59.4	59.8	*	*
11 years	34	*58.6	3.1	*	*	*	57.6	59.6	60.7	*	*	*
12 years	34	*61.0	2.4	*	*	*	59.1	61.1	62.6	*	*	*
13 years	46	62.2	2.4	*	*	60.1	60.6	62.2	63.7	64.4	*	*
14 years	35	*62.2	1.4	*	*	60.3	61.3	62.2	63.3	63.8	*	*
15 years	46	62.7	2.2	*	*	60.6	60.9	62.3	64.3	65.5	*	*
16 years	43	*62.8	2.5	*	*	59.6	60.8	62.8	65.0	66.0	*	*
17 years	38	*63.1	2.2	*	*	61.1	62.1	63.2	64.3	64.6	*	*
18 years	37	*62.3	2.2	*	*	59.9	61.5	62.1	64.3	64.5	*	*
19 years	35	*63.4	2.5	*	*	60.4	61.6	63.7	65.0	65.7	*	*

NOTES: Height without shoes. Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 18. Height in inches for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,014	61.8	2.3	58.1	58.9	59.4	60.2	61.8	63.4	64.3	64.8	65.7
18-24 years	430	62.3	2.4	58.6	59.2	59.8	60.7	62.3	63.9	64.7	65.7	66.1
25-34 years	541	62.1	2.3	58.4	59.3	59.9	60.6	62.2	63.6	64.5	64.9	65.7
35-44 years	341	61.8	2.2	58.2	59.0	59.6	60.3	61.8	63.2	64.2	64.6	65.6
45-54 years	361	61.4	2.3	57.4	58.4	59.0	59.9	61.5	62.9	63.6	64.5	65.2
55-64 years	223	61.1	2.2	57.6	58.5	58.9	59.6	61.1	62.7	63.6	64.1	65.2
65-74 years	118	60.3	2.3	56.7	57.7	57.8	58.7	60.2	62.0	63.1	63.4	64.2
Cuban												
18-74 years	504	61.8	2.2	58.4	59.1	59.6	60.5	61.8	63.3	64.1	64.6	65.5
18-24 years	55	62.9	2.5	*	60.5	60.9	61.9	63.4	64.5	65.2	65.7	*
25-34 years	74	62.0	2.1	*	59.3	59.5	60.6	61.8	63.3	64.2	64.5	*
35-44 years	95	61.9	2.0	*	59.6	59.8	60.6	61.8	63.1	64.0	64.5	*
45-54 years	119	62.1	2.1	58.6	59.4	59.9	60.8	62.1	63.7	64.5	64.9	65.6
55-64 years	97	61.3	2.0	*	58.7	59.1	59.8	61.1	62.6	63.2	63.8	*
65-74 years	64	60.6	1.9	*	58.3	58.9	59.3	60.5	61.6	62.7	63.0	*
Puerto Rican												
18-74 years	845	61.8	2.5	57.9	58.8	59.4	60.3	61.7	63.4	64.4	65.1	66.0
18-24 years	190	62.6	2.4	59.1	59.9	60.2	61.1	62.2	64.0	65.1	65.6	66.8
25-34 years	172	62.4	2.5	58.3	59.6	60.1	60.7	62.2	64.0	65.1	65.5	67.0
35-44 years	156	61.4	2.2	57.9	58.4	59.1	60.1	61.3	62.9	63.4	64.2	65.2
45-54 years	177	61.3	2.5	57.0	57.9	58.9	59.8	61.3	62.7	63.8	64.5	65.0
55-64 years	97	60.8	2.2	*	58.3	58.4	59.0	60.7	62.1	62.9	63.7	*
65-74 years	53	60.2	2.3	*	57.4	58.2	59.2	60.1	61.1	62.1	62.7	*

NOTES: Height without shoes. See appendix III for the definition of Hispanic origin.

Table 19. Height in centimeters for males 2-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
2 years	110	91.5	4.0	85.1	86.1	87.2	88.9	91.7	93.8	95.6	96.6	98.2
3 years	131	98.6	4.8	89.7	91.2	93.3	95.6	99.5	101.7	103.6	104.2	105.5
4 years	118	105.3	4.8	97.9	99.3	100.2	101.7	104.9	108.7	111.2	111.8	113.1
5 years	115	111.9	5.4	103.4	105.1	106.3	108.5	111.6	115.6	117.6	118.6	121.4
6 years	109	117.9	5.2	109.1	110.1	112.0	114.8	118.2	121.2	123.1	124.1	126.1
7 years	110	123.5	5.8	112.9	115.4	117.0	119.5	123.9	127.8	129.4	131.3	132.7
8 years	102	129.3	4.6	122.3	124.3	125.0	125.9	128.5	132.8	134.0	135.9	137.5
9 years	106	134.3	6.7	125.4	126.7	127.7	129.2	133.2	137.4	141.3	143.5	147.8
10 years	88	140.0	6.9	*	130.7	132.2	135.2	139.9	145.6	146.7	148.0	*
11 years	115	146.4	6.8	135.7	138.0	138.7	141.6	146.1	151.4	154.4	155.3	156.9
12 years	115	152.4	7.5	140.5	142.3	144.6	146.8	151.5	157.6	161.6	162.7	164.7
13 years	97	160.4	8.1	*	150.4	152.0	155.2	161.1	165.7	169.5	170.4	*
14 years	97	165.6	7.1	*	156.5	157.5	160.6	166.6	170.4	172.9	174.0	*
15 years	69	168.3	7.3	*	158.7	161.6	163.5	168.8	173.7	175.3	177.2	*
16 years	76	170.1	6.6	*	162.2	162.8	165.1	171.2	174.6	176.4	177.7	*
17 years	71	171.0	6.8	*	163.0	163.8	166.3	171.1	175.6	177.2	179.2	*
18 years	63	169.8	5.8	*	163.6	164.0	165.2	168.1	173.5	175.1	177.1	*
19 years	64	169.8	5.6	*	164.9	165.5	166.8	168.5	172.7	176.6	178.1	*
Puerto Rican												
2 years	34	*93.4	5.3	*	*	*	89.1	94.0	96.6	*	*	*
3 years	38	*99.5	4.7	*	*	94.9	95.6	99.0	102.3	104.1	*	*
4 years	41	*107.3	6.2	*	*	102.7	104.5	107.3	110.1	112.1	*	*
5 years	22	*	*	*	*	*	111.8	113.4	116.1	*	*	*
6 years	37	*119.9	5.0	*	*	115.3	116.0	119.1	123.5	126.3	*	*
7 years	39	*125.8	7.4	*	*	118.1	122.0	124.6	130.7	135.3	*	*
8 years	41	*130.2	6.3	*	*	123.3	125.6	129.1	133.5	138.1	*	*
9 years	26	*136.0	6.4	*	*	*	129.6	136.5	141.3	*	*	*
10 years	38	*144.5	7.1	*	*	136.5	138.5	143.7	149.9	152.5	*	*
11 years	27	*145.6	7.4	*	*	*	140.5	146.6	151.8	*	*	*
12 years	37	*155.4	7.6	*	*	146.3	151.3	155.8	160.2	163.3	*	*
13 years	39	*160.3	8.6	*	*	150.6	153.2	160.2	166.6	170.6	*	*
14 years	40	*166.4	7.4	*	*	159.8	161.9	165.1	170.8	171.9	*	*
15 years	37	*171.3	7.6	*	*	165.6	167.2	169.6	178.3	180.7	*	*
16 years	43	*172.0	6.3	*	*	165.0	167.5	172.6	177.9	179.1	*	*
17 years	41	*171.4	7.4	*	*	162.6	167.6	172.1	176.2	178.2	*	*
18 years	35	*172.2	7.2	*	*	166.7	169.2	172.6	177.9	179.0	*	*
19 years	25	*173.3	7.0	*	*	*	166.1	174.0	178.1	*	*	*

NOTES: Height without shoes. Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 20. Height in centimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,581	170.4	6.7	159.7	162.0	163.4	165.8	170.3	174.7	177.1	179.1	182.0
18-24 years	345	171.2	6.9	159.9	162.5	164.0	166.4	170.9	175.5	178.2	180.6	183.6
25-34 years	438	171.0	6.7	160.6	162.6	163.7	166.1	170.8	175.3	177.6	180.4	183.1
35-44 years	252	170.4	6.4	160.3	162.7	164.0	166.2	170.2	174.3	176.9	178.2	181.7
45-54 years	270	170.0	6.2	159.0	161.3	163.6	166.6	170.2	174.4	176.2	177.9	179.7
55-64 years	194	167.8	6.0	158.0	159.8	161.6	163.8	167.7	171.6	173.6	176.2	178.0
65-74 years	82	166.6	7.4	*	157.4	160.4	162.1	166.5	170.7	174.5	175.7	*
Cuban												
18-74 years	404	171.1	6.5	160.7	163.2	164.5	166.7	170.7	175.5	178.0	179.7	182.7
18-24 years	55	173.9	5.8	*	166.3	168.7	169.8	173.2	177.3	182.3	183.1	*
25-34 years	64	173.8	6.3	*	164.6	166.9	169.1	173.9	178.4	180.8	183.1	*
35-44 years	52	170.9	6.2	*	164.2	165.5	167.0	170.6	174.2	177.0	177.9	*
45-54 years	114	169.2	6.0	159.2	162.0	163.0	166.1	168.8	172.6	175.7	177.3	179.4
55-64 years	78	169.8	5.9	*	161.7	163.1	165.4	169.6	174.4	176.9	177.7	*
65-74 years	41	*167.7	6.6	*	*	161.5	163.5	166.7	172.2	175.0	*	*
Puerto Rican												
18-74 years	504	170.2	6.9	158.1	161.5	163.2	165.5	170.6	175.2	177.3	178.6	180.9
18-24 years	115	172.6	6.7	162.5	163.7	165.2	168.7	172.7	177.4	179.0	180.8	183.4
25-34 years	106	172.6	6.1	161.7	164.7	165.7	168.2	173.8	176.4	178.5	180.3	182.3
35-44 years	73	168.6	5.6	*	162.2	163.5	165.2	168.9	172.5	174.2	175.7	*
45-54 years	104	168.5	6.9	158.3	160.2	161.6	163.3	169.0	174.5	175.7	176.5	178.2
55-64 years	81	165.8	6.6	*	157.5	159.0	160.8	165.9	169.5	172.6	174.2	*
65-74 years	25	*165.3	7.2	*	*	*	157.7	164.8	171.0	*	*	*

NOTES: Height without shoes. See appendix III for the definition of Hispanic origin.

Table 21. Height in centimeters for females 2-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
2 years	116	89.2	3.8	82.7	84.5	85.6	86.9	89.4	91.9	93.4	94.0	94.4
3 years	97	97.9	4.6	*	90.0	92.6	94.2	98.4	101.6	102.3	103.6	*
4 years	96	105.1	4.9	*	98.1	98.6	102.2	105.1	108.6	110.1	110.7	*
5 years	109	111.7	5.2	103.0	104.7	106.4	107.9	111.7	115.1	116.4	118.3	120.1
6 years	118	117.6	5.0	109.1	111.8	113.5	114.8	117.2	120.5	122.5	124.3	126.1
7 years	96	123.1	5.9	*	116.1	116.9	119.1	123.0	126.1	128.3	129.8	*
8 years	107	127.8	6.6	118.5	120.0	121.8	123.4	127.9	132.1	134.5	136.3	139.6
9 years	124	136.0	6.3	126.1	127.2	129.3	131.5	136.5	140.6	143.2	144.7	146.0
10 years	94	142.0	6.7	*	133.0	134.5	137.6	140.7	146.8	148.2	150.2	*
11 years	115	147.3	8.2	133.4	135.6	139.1	142.2	147.1	152.7	155.8	157.6	159.1
12 years	103	152.9	5.5	143.2	144.7	148.3	150.0	153.2	156.2	158.2	159.0	163.0
13 years	89	156.7	5.5	*	149.6	151.3	152.6	157.5	160.4	162.6	163.7	*
14 years	75	156.5	5.4	*	150.5	150.7	152.8	157.4	160.3	161.6	162.7	*
15 years	85	160.4	5.5	*	153.1	154.9	156.8	160.1	164.3	167.6	168.2	*
16 years	99	158.0	7.4	*	149.4	151.2	153.2	158.3	162.7	164.3	165.5	*
17 years	75	158.7	5.7	*	151.7	153.8	155.4	158.8	161.5	163.7	165.7	*
18 years	77	157.8	5.5	*	149.6	150.6	154.6	158.4	161.7	163.7	164.3	*
19 years	75	159.4	5.9	*	151.9	153.6	155.6	159.9	162.9	165.3	166.9	*
Puerto Rican												
2 years	27	*88.9	4.1	*	*	*	85.8	88.1	91.6	*	*	*
3 years	40	*98.0	3.9	*	*	93.2	95.9	97.6	100.6	101.6	*	*
4 years	34	*106.7	4.7	*	*	*	103.4	106.0	110.2	*	*	*
5 years	30	*115.0	4.9	*	*	*	111.5	114.3	117.1	*	*	*
6 years	35	*120.6	5.1	*	*	115.6	117.0	120.3	124.1	125.0	*	*
7 years	39	*124.7	7.6	*	*	117.0	118.9	123.7	128.2	134.8	*	*
8 years	30	*131.6	6.2	*	*	*	126.9	131.7	135.7	*	*	*
9 years	34	*138.2	8.5	*	*	*	133.2	136.4	140.7	*	*	*
10 years	36	*142.8	7.9	*	*	132.7	135.6	143.0	151.1	152.1	*	*
11 years	34	*148.9	7.9	*	*	*	146.3	151.3	154.4	*	*	*
12 years	34	*154.9	6.1	*	*	*	150.0	155.3	158.8	*	*	*
13 years	46	158.1	6.0	*	*	152.5	154.1	158.1	161.7	163.6	*	*
14 years	35	*158.0	3.7	*	*	153.2	155.5	158.2	160.9	162.0	*	*
15 years	46	159.2	5.5	*	*	154.0	154.6	158.3	163.4	166.5	*	*
16 years	43	*159.6	6.4	*	*	151.3	154.4	159.7	164.9	167.6	*	*
17 years	38	*160.3	5.6	*	*	155.3	157.5	160.6	163.4	164.0	*	*
18 years	37	*158.3	5.6	*	*	152.2	156.0	157.8	163.1	163.7	*	*
19 years	35	*161.0	6.2	*	*	153.7	156.5	161.7	165.0	167.0	*	*

NOTES: Height without shoes. Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 22. Height in centimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,014	157.0	6.0	147.5	149.6	150.9	153.1	157.0	161.1	163.2	164.7	166.9
18-24 years	430	158.2	6.1	148.7	150.3	151.9	154.1	158.2	162.1	164.4	166.9	168.0
25-34 years	541	157.8	5.8	148.4	150.6	152.1	154.0	157.9	161.7	163.7	164.8	166.9
35-44 years	341	157.0	5.6	147.8	149.8	151.2	153.2	157.1	160.7	163.1	164.1	166.6
45-54 years	361	156.0	5.8	145.9	148.3	149.9	152.2	156.1	159.7	161.6	163.7	165.6
55-64 years	223	155.3	5.6	146.5	148.7	149.7	151.6	155.2	159.2	161.6	162.9	165.6
65-74 years	118	153.3	5.8	144.0	146.5	146.8	149.1	153.1	157.7	160.0	161.2	163.2
Cuban												
18-74 years	504	157.1	5.5	148.4	150.1	151.2	153.5	157.0	161.0	162.9	164.2	166.4
18-24 years	55	159.8	6.3	*	153.5	154.9	157.1	161.0	163.7	165.6	167.2	*
25-34 years	74	157.4	5.2	*	150.5	151.1	153.8	157.1	160.9	163.2	164.0	*
35-44 years	95	157.3	5.0	*	151.4	151.9	154.0	157.1	160.5	162.5	163.7	*
45-54 years	119	157.8	5.4	148.9	151.0	152.1	154.6	157.7	161.9	163.7	164.7	166.6
55-64 years	97	155.6	5.1	*	149.1	150.2	152.0	155.2	159.0	160.7	162.2	*
65-74 years	64	153.9	4.8	*	148.2	149.7	150.6	153.7	156.4	159.1	159.9	*
Puerto Rican												
18-74 years	845	157.1	6.3	147.1	149.3	151.0	153.2	156.8	161.0	163.5	165.2	167.4
18-24 years	190	159.0	6.0	150.1	152.2	153.1	155.0	158.0	162.6	165.1	166.7	169.7
25-34 years	172	158.5	6.4	148.1	151.5	152.7	154.0	158.1	162.6	165.1	166.2	170.1
35-44 years	156	156.0	5.5	147.1	148.4	150.2	152.7	155.8	159.8	161.1	163.2	165.6
45-54 years	177	155.7	6.3	144.8	147.2	149.6	152.1	155.7	159.2	162.1	163.8	165.0
55-64 years	97	154.3	5.5	*	148.0	148.4	149.8	154.3	157.8	159.8	161.9	*
65-74 years	53	152.9	5.9	*	145.9	147.8	150.4	152.7	155.5	157.7	159.4	*

NOTES: Height without shoes. See appendix III for the definition of Hispanic origin.

Table 23. Recumbent length in centimeters for persons 6 months-3 years of age--number examined, mean, standard deviation, and selected percentiles, by sex, specified Hispanic origin, and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Sex, Hispanic origin, and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
Mexican American :												
6-11 months	57	73.3	3.3	*	69.2	69.7	70.6	73.5	75.0	76.8	78.1	*
1 year	104	82.6	4.6	76.0	76.8	77.4	79.3	82.1	85.3	87.9	88.8	90.1
2 years	111	92.1	4.3	84.9	86.6	87.7	89.2	92.2	95.1	96.6	97.5	99.1
3 years	119	98.7	4.7	90.1	91.5	92.9	95.6	99.6	102.0	103.5	104.1	105.1
Puerto Rican :												
6-11 months	17	*	*	*	*	*	*	72.1	*	*	*	*
1 year	31	*83.2	7.1	*	*	*	77.8	83.6	86.7	*	*	*
2 years	33	*94.1	5.7	*	*	*	90.1	95.0	98.3	*	*	*
3 years	37	*99.8	4.0	*	*	94.8	96.9	99.4	102.9	103.7	*	*
Female												
Mexican American :												
6-11 months	63	70.5	4.7	*	66.5	67.0	67.9	70.3	72.1	74.7	76.0	*
1 year	118	80.7	4.8	74.2	75.1	76.6	77.6	80.4	84.0	85.1	86.5	87.5
2 years	117	89.7	3.9	83.7	84.5	85.9	87.3	89.5	92.4	93.5	94.4	96.5
3 years	93	98.2	4.7	*	90.6	93.1	94.8	98.8	102.0	103.0	104.2	*
Puerto Rican :												
6-11 months	14	*	*	*	*	*	*	72.1	*	*	*	*
1 year	31	*82.0	6.8	*	*	*	79.1	83.3	86.7	*	*	*
2 years	26	*89.9	3.8	*	*	*	86.6	90.4	91.8	*	*	*
3 years	36	*99.0	4.1	*	*	94.1	96.3	98.5	103.3	104.1	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 24. Crown rump length in centimeters for persons 6 months-3 years of age--number examined, mean, standard deviation, and selected percentiles, by sex, specified Hispanic origin, and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Sex, Hispanic origin, and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
Mexican American :												
6-11 months	57	46.5	2.3	*	43.7	44.7	45.0	46.3	47.5	49.0	49.4	*
1 year	104	50.5	2.9	45.9	46.6	47.5	49.0	50.5	52.1	52.8	54.3	54.9
2 years	111	54.1	2.5	49.7	51.0	51.4	52.4	54.4	55.6	56.6	57.1	57.6
3 years	119	56.7	3.0	52.2	53.2	53.7	54.4	56.6	58.9	59.5	60.1	60.7
Puerto Rican :												
6-11 months	17	*	*	*	*	*	*	46.8	*	*	*	*
1 year	31	*51.4	3.0	*	*	*	49.6	51.4	53.6	*	*	*
2 years	33	*55.6	3.1	*	*	*	53.9	55.8	57.8	*	*	*
3 years	36	*57.0	2.4	*	*	54.4	55.4	57.5	58.7	60.0	*	*
Female												
Mexican American :												
6-11 months	62	44.5	2.7	*	42.1	42.2	43.4	44.4	46.1	47.1	47.8	*
1 year	117	49.4	3.0	44.4	45.8	46.6	47.3	49.5	51.7	52.3	53.1	53.7
2 years	117	52.8	2.4	48.7	49.7	50.5	51.1	52.7	54.3	55.3	55.7	56.6
3 years	93	56.5	2.7	*	53.0	53.3	54.4	56.6	58.4	59.4	59.8	*
Puerto Rican :												
6-11 months	14	*	*	*	*	*	*	45.4	*	*	*	*
1 year	31	*50.4	3.5	*	*	*	48.6	50.9	52.7	*	*	*
2 years	26	*54.0	2.6	*	*	*	52.7	54.2	54.9	*	*	*
3 years	36	*56.4	2.3	*	*	53.9	54.5	56.4	58.6	59.3	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 25. Sitting height in centimeters for males 2-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
2 years	108	54.8	2.1	51.3	52.0	52.3	53.4	54.9	56.3	56.9	57.3	58.8
3 years	129	57.6	2.4	53.6	54.5	55.0	55.9	57.7	59.1	60.1	60.7	61.4
4 years	117	60.4	2.6	55.7	57.1	57.5	58.8	60.4	62.2	63.2	64.1	64.6
5 years	115	62.8	3.3	57.8	58.9	59.5	61.0	63.3	64.9	65.9	66.6	67.5
6 years	109	65.5	2.6	61.2	61.6	62.8	63.7	65.5	67.2	68.8	69.2	69.8
7 years	110	67.7	3.1	62.5	63.2	64.0	65.8	68.0	70.0	71.1	72.0	72.6
8 years	102	70.1	2.5	66.1	67.2	67.4	68.2	70.3	71.5	72.5	73.0	74.8
9 years	106	72.4	3.5	67.2	68.6	69.0	70.1	72.3	74.4	75.6	77.1	79.0
10 years	88	74.2	3.7	*	70.1	70.3	71.6	73.8	76.9	78.3	78.7	*
11 years	114	77.4	3.9	71.5	72.9	73.2	74.3	77.1	80.1	81.9	82.5	84.0
12 years	114	79.4	3.9	72.9	74.7	75.6	76.5	79.2	82.0	83.1	85.0	87.0
13 years	97	83.8	4.1	*	78.5	79.8	80.8	83.7	86.5	87.7	88.9	*
14 years	97	86.1	3.8	*	81.4	82.0	83.5	86.0	88.6	90.1	90.2	*
15 years	69	88.3	4.1	*	83.5	84.5	86.1	89.0	90.9	92.4	93.2	*
16 years	76	89.6	4.1	*	84.6	85.5	87.5	90.0	92.2	93.6	94.4	*
17 years	71	90.1	3.5	*	85.6	86.3	87.6	90.1	92.3	93.2	95.0	*
18 years	63	90.2	2.9	*	86.8	87.1	87.7	89.8	92.1	92.9	93.6	*
19 years	64	90.1	3.0	*	86.5	87.6	88.6	89.8	92.1	93.0	94.0	*
Puerto Rican												
2 years	34	*55.6	2.7	*	*	*	53.5	55.7	57.1	*	*	*
3 years	38	*57.4	2.5	*	*	54.1	55.8	57.1	59.3	60.0	*	*
4 years	41	*61.1	3.0	*	*	58.4	59.5	61.2	63.4	64.2	*	*
5 years	21	*	*	*	*	*	61.8	64.0	65.4	*	*	*
6 years	37	*66.3	2.9	*	*	63.6	64.0	66.1	68.0	68.5	*	*
7 years	39	*68.5	3.1	*	*	65.5	66.9	68.5	71.1	72.2	*	*
8 years	41	*69.8	3.1	*	*	66.4	68.0	69.5	72.2	73.0	*	*
9 years	26	*73.4	3.1	*	*	*	70.9	73.1	76.4	*	*	*
10 years	38	*76.2	3.9	*	*	72.1	72.5	76.0	80.5	81.1	*	*
11 years	27	*76.1	3.4	*	*	*	73.7	76.0	78.8	*	*	*
12 years	37	*80.5	3.8	*	*	76.7	78.2	81.4	83.9	84.2	*	*
13 years	39	*83.2	4.2	*	*	78.7	80.1	83.0	86.1	87.3	*	*
14 years	40	*86.6	4.4	*	*	82.9	83.6	87.0	89.5	90.4	*	*
15 years	37	*87.9	3.9	*	*	84.3	85.4	88.5	90.6	91.5	*	*
16 years	44	*89.8	3.2	*	*	87.1	88.5	89.6	91.5	92.4	*	*
17 years	41	*89.9	3.3	*	*	86.6	87.6	89.8	92.2	93.5	*	*
18 years	35	*90.1	3.7	*	*	87.6	88.1	90.4	92.1	93.6	*	*
19 years	25	*90.5	2.8	*	*	*	88.5	90.4	93.1	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 26. Sitting height in centimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,577	90.5	3.4	85.0	86.4	87.1	88.4	90.6	92.6	94.0	94.8	96.1
18-24 years	344	90.7	3.3	85.3	86.5	87.3	88.5	91.0	92.7	94.0	94.9	96.2
25-34 years	437	90.9	3.4	85.8	86.7	87.6	88.6	90.7	93.3	94.5	95.1	96.7
35-44 years	252	90.9	3.1	85.5	87.1	87.8	88.9	91.0	92.7	93.9	95.0	96.1
45-54 years	270	90.5	3.2	84.3	86.6	87.5	88.7	90.6	92.6	93.8	94.5	96.0
55-64 years	193	89.1	3.2	84.1	85.0	85.5	86.6	89.1	91.0	92.3	93.1	94.6
65-74 years	81	87.8	3.9	*	84.0	84.8	86.0	87.8	89.8	91.1	92.2	*
Cuban												
18-74 years	398	90.3	3.3	85.0	86.0	86.6	88.1	90.1	92.6	94.2	94.8	95.6
18-24 years	53	91.8	3.1	*	87.9	88.3	89.5	92.2	94.4	95.0	96.0	*
25-34 years	64	92.0	3.0	*	88.4	89.1	89.9	91.9	94.3	95.5	96.1	*
35-44 years	51	90.1	3.3	*	85.6	87.0	88.1	89.5	92.6	94.3	94.7	*
45-54 years	112	89.4	3.2	84.0	85.3	85.9	87.6	89.5	91.7	92.6	93.5	94.2
55-64 years	77	89.4	2.9	*	85.5	86.3	87.5	89.5	91.3	92.9	93.4	*
65-74 years	41	*88.0	2.7	*	*	85.6	86.4	87.7	89.6	90.9	*	*
Puerto Rican												
18-74 years	502	89.5	3.7	83.7	85.0	86.1	87.2	89.7	92.1	93.1	93.9	94.9
18-24 years	115	90.3	3.3	85.2	86.1	87.1	88.0	90.4	92.6	93.6	94.7	96.1
25-34 years	106	90.9	3.0	86.4	86.8	87.2	88.3	91.2	92.7	94.1	94.5	95.6
35-44 years	73	89.1	3.2	*	84.6	86.0	87.0	89.5	91.6	92.4	93.0	*
45-54 years	102	88.9	4.5	83.8	84.7	85.8	87.1	89.2	91.6	92.3	93.1	93.6
55-64 years	81	87.4	3.3	*	82.9	83.9	84.8	87.4	89.1	91.6	92.8	*
65-74 years	25	*85.0	3.0	*	*	*	83.3	85.7	87.2	*	*	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 27. Sitting height in centimeters for females 2-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
2 years	114	53.0	2.1	50.0	50.4	51.0	51.6	53.1	54.5	55.0	55.6	56.3
3 years	96	56.9	2.3	*	54.2	54.4	55.5	57.0	58.6	59.8	60.0	*
4 years	96	60.0	2.9	*	55.6	56.4	58.1	60.3	62.0	62.8	63.0	*
5 years	109	62.5	3.0	57.4	58.7	59.6	60.7	62.7	64.1	65.2	65.9	67.5
6 years	116	64.7	2.6	60.1	61.7	62.0	63.0	64.6	66.1	67.1	67.6	69.8
7 years	96	67.1	3.3	*	63.1	63.8	65.1	67.1	68.8	69.7	71.5	*
8 years	107	69.2	3.5	63.6	63.7	65.1	66.9	69.1	71.4	72.7	73.7	75.2
9 years	124	72.2	3.5	66.3	67.4	68.5	69.6	72.0	74.9	76.3	76.8	78.0
10 years	94	75.6	3.7	*	71.6	72.1	73.1	75.6	77.9	78.9	81.1	*
11 years	115	77.5	4.6	69.2	71.0	73.2	74.7	78.3	80.6	81.5	83.0	84.5
12 years	103	81.0	3.1	75.8	77.8	78.4	78.9	80.7	83.0	83.8	84.5	86.5
13 years	89	83.2	3.2	*	78.6	79.4	81.2	83.1	86.1	87.0	87.2	*
14 years	75	83.9	2.7	*	80.5	81.1	81.8	84.0	85.6	86.5	87.5	*
15 years	85	85.3	2.9	*	81.7	82.1	83.5	85.5	87.3	88.4	88.9	*
16 years	99	84.7	3.6	*	80.0	81.4	82.7	84.6	87.1	88.6	89.3	*
17 years	75	84.6	2.6	*	81.1	82.1	82.8	84.5	86.3	87.7	88.1	*
18 years	77	84.8	3.0	*	80.3	81.6	83.1	84.8	86.8	87.7	88.4	*
19 years	75	85.5	3.4	*	80.7	82.1	83.3	85.7	87.8	89.0	90.0	*
Puerto Rican												
2 years	26	*53.3	2.0	*	*	*	51.6	53.9	54.4	*	*	*
3 years	38	*56.1	2.3	*	*	54.0	54.6	55.2	57.6	59.3	*	*
4 years	34	*60.2	2.5	*	*	*	58.1	60.2	61.7	*	*	*
5 years	30	*64.0	4.3	*	*	*	61.7	63.2	65.5	*	*	*
6 years	35	*66.0	2.7	*	*	63.1	64.1	66.1	67.9	68.8	*	*
7 years	38	*67.2	3.7	*	*	64.0	64.5	66.6	68.7	71.4	*	*
8 years	31	*70.8	3.3	*	*	*	68.4	71.3	73.8	*	*	*
9 years	34	*72.8	3.7	*	*	*	70.1	72.6	74.2	*	*	*
10 years	36	*75.3	3.9	*	*	71.6	72.0	75.0	79.3	80.1	*	*
11 years	34	*77.9	4.3	*	*	*	75.8	78.1	80.7	*	*	*
12 years	34	*81.1	3.4	*	*	*	78.8	80.9	83.8	*	*	*
13 years	46	83.2	2.7	*	*	80.9	81.3	83.5	85.0	86.5	*	*
14 years	35	*84.2	3.4	*	*	81.2	82.6	84.0	85.5	87.3	*	*
15 years	46	84.5	2.9	*	*	81.5	82.4	84.0	86.6	88.5	*	*
16 years	43	*85.2	3.2	*	*	81.6	82.3	85.0	87.9	88.8	*	*
17 years	38	*84.9	3.1	*	*	82.1	83.7	85.5	87.0	87.8	*	*
18 years	37	*83.9	2.8	*	*	80.1	82.0	84.5	85.4	86.0	*	*
19 years	35	*85.3	3.5	*	*	81.1	82.9	85.6	87.8	89.2	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 28. Sitting height in centimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,998	84.6	3.1	79.3	80.7	81.6	82.6	84.7	86.6	87.8	88.6	89.6
18-24 years	427	85.1	3.0	80.3	81.3	82.0	83.1	85.0	86.9	88.3	89.0	90.1
25-34 years	538	85.3	3.0	80.6	81.7	82.3	83.5	85.3	87.1	88.3	89.3	90.3
35-44 years	339	84.9	2.7	80.9	81.6	82.1	83.1	85.0	86.8	87.9	88.6	89.1
45-54 years	360	84.1	3.1	79.1	79.9	81.0	82.1	84.2	86.1	87.0	87.8	89.3
55-64 years	217	83.3	2.9	78.4	79.5	80.4	81.6	83.3	85.1	86.2	87.0	87.9
65-74 years	117	81.1	3.1	75.9	77.0	78.0	79.0	81.1	83.2	84.4	85.2	86.2
Cuban												
18-74 years	499	83.9	3.0	79.0	80.1	80.7	82.0	84.1	85.8	87.0	87.5	88.3
18-24 years	55	85.0	3.2	*	81.5	81.8	83.7	85.1	86.6	87.9	88.9	*
25-34 years	73	84.5	2.8	*	80.6	81.5	82.7	84.6	86.4	87.2	87.6	*
35-44 years	94	84.4	2.7	*	81.2	82.0	82.6	84.6	85.8	86.7	87.3	*
45-54 years	118	84.1	2.6	79.6	80.5	81.5	82.4	84.2	85.9	87.0	87.4	87.8
55-64 years	96	83.1	3.1	*	79.3	80.4	81.1	83.1	84.9	86.3	87.5	*
65-74 years	63	81.3	2.8	*	77.8	78.7	79.8	81.4	82.9	84.1	84.5	*
Puerto Rican												
18-74 years	844	83.9	3.3	78.5	79.8	80.6	81.8	83.8	86.2	87.3	88.1	89.1
18-24 years	190	84.7	3.1	80.4	81.1	81.5	82.5	84.5	86.5	87.6	88.5	90.3
25-34 years	171	85.0	3.1	80.0	81.1	82.0	82.8	85.0	87.2	88.5	89.0	89.5
35-44 years	156	83.7	3.0	79.0	80.0	80.6	81.8	83.9	86.1	86.9	87.4	88.1
45-54 years	177	82.9	3.5	77.5	78.5	79.4	80.8	82.7	85.5	86.8	87.6	88.4
55-64 years	97	82.2	2.9	*	78.5	78.7	80.4	82.2	83.9	84.7	86.5	*
65-74 years	53	80.6	2.8	*	77.6	78.0	78.6	80.2	82.1	83.3	83.6	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 29. Biacromial breadth in centimeters for males 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	57	17.2	1.2	*	15.9	16.0	16.3	16.9	18.0	18.4	18.9	*
1 year	105	19.1	1.4	16.9	17.4	17.6	18.1	19.1	20.0	20.3	21.1	21.7
2 years	110	20.7	1.2	18.6	19.2	19.4	19.8	20.6	21.4	21.9	22.4	22.9
3 years	130	22.0	1.4	19.8	20.1	20.4	21.1	22.0	23.0	23.3	23.7	24.2
4 years	118	23.4	1.4	21.3	21.6	22.1	22.5	23.4	24.2	24.5	24.7	25.3
5 years	116	24.5	1.4	22.3	22.9	23.1	23.5	24.4	25.5	26.0	26.4	26.8
6 years	110	25.6	1.6	23.2	24.1	24.4	24.9	25.5	26.6	27.1	27.3	28.4
7 years	110	27.3	1.7	24.1	25.0	25.6	26.1	27.4	28.7	29.2	29.7	30.0
8 years	102	28.3	1.6	25.4	26.4	27.0	27.4	28.2	29.2	29.6	29.8	30.7
9 years	106	29.5	2.1	26.7	27.1	27.5	28.2	29.2	30.5	31.3	31.9	33.1
10 years	88	30.6	2.2	*	27.9	28.5	29.3	30.9	32.0	32.9	33.3	*
11 years	115	32.3	2.2	28.9	30.0	30.2	30.6	32.2	33.5	34.1	34.7	36.0
12 years	114	33.4	2.1	29.9	30.9	31.1	32.0	33.3	34.8	35.6	36.2	37.0
13 years	97	35.6	2.0	*	33.1	33.7	34.1	35.5	36.9	37.8	38.1	*
14 years	97	36.9	2.4	*	34.2	34.5	35.7	37.1	38.0	38.8	39.6	*
15 years	69	38.0	1.9	*	35.9	36.3	36.6	38.1	39.2	39.7	40.5	*
16 years	76	38.7	2.5	*	36.0	36.7	37.4	38.9	40.3	40.7	41.2	*
17 years	71	39.7	2.2	*	36.7	37.4	37.9	39.7	41.1	41.9	42.4	*
18 years	63	39.9	1.9	*	37.3	38.1	38.8	40.0	41.1	41.3	42.1	*
19 years	64	39.9	2.1	*	37.2	37.8	38.6	40.0	41.3	42.5	42.6	*
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	18.1	*	*	*	*
1 year	33	*21.1	1.7	*	*	*	18.5	19.6	20.4	*	*	*
2 years	34	*22.7	1.3	*	*	*	20.3	21.5	22.5	*	*	*
3 years	38	*22.2	1.2	*	*	20.9	21.3	22.1	22.6	23.4	*	*
4 years	41	*25.2	1.8	*	*	22.6	22.8	24.0	24.9	25.2	*	*
5 years	22	*	*	*	*	*	25.0	25.8	26.2	*	*	*
6 years	37	*26.6	1.9	*	*	24.7	25.1	26.2	27.4	28.3	*	*
7 years	39	*27.5	2.1	*	*	25.9	26.5	27.3	28.5	29.0	*	*
8 years	41	*29.6	2.3	*	*	26.5	27.1	28.6	30.0	31.4	*	*
9 years	26	*29.7	1.9	*	*	*	28.0	29.7	31.4	*	*	*
10 years	38	*31.8	2.2	*	*	28.9	30.1	32.1	33.1	34.2	*	*
11 years	27	*31.9	2.2	*	*	*	30.0	31.7	33.1	*	*	*
12 years	37	*34.1	2.3	*	*	31.2	31.9	34.5	35.4	36.2	*	*
13 years	39	*35.3	2.4	*	*	32.8	33.5	35.2	36.7	37.3	*	*
14 years	40	*37.5	2.4	*	*	34.8	35.7	37.9	38.8	39.9	*	*
15 years	37	*38.2	2.7	*	*	35.1	37.0	38.1	39.4	41.6	*	*
16 years	44	*39.5	2.2	*	*	37.4	38.0	39.6	40.6	42.3	*	*
17 years	42	*39.1	2.2	*	*	37.3	37.4	38.3	41.4	41.8	*	*
18 years	35	*40.0	2.7	*	*	37.2	38.7	40.1	41.9	43.0	*	*
19 years	25	*39.9	2.2	*	*	*	38.3	40.3	41.3	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 30. Biacromial breadth in centimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,582	40.2	2.1	36.9	37.6	38.2	39.0	40.3	41.5	42.3	42.8	43.6
18-24 years	347	40.3	2.0	36.9	37.8	38.3	39.0	40.3	41.6	42.5	42.8	43.4
25-34 years	437	40.6	2.1	37.3	38.1	38.8	39.3	40.6	41.9	42.7	43.3	44.2
35-44 years	252	40.4	2.0	36.8	37.6	38.3	39.2	40.4	41.6	42.4	42.7	43.5
45-54 years	270	40.1	2.1	37.2	37.7	38.3	39.0	40.1	41.2	41.8	42.4	43.4
55-64 years	194	39.4	1.7	36.9	37.2	37.6	38.3	39.4	40.6	41.3	41.6	42.2
65-74 years	82	38.8	2.0	*	36.4	36.5	37.3	39.0	40.2	41.3	41.5	*
Cuban												
18-74 years	405	39.6	2.2	35.8	36.8	37.4	38.3	39.7	41.1	41.7	42.1	43.2
18-24 years	55	40.1	1.9	*	38.1	38.5	38.9	40.1	41.2	41.7	42.5	*
25-34 years	64	40.7	1.9	*	38.5	38.7	39.5	40.9	41.9	42.4	43.3	*
35-44 years	52	39.5	1.9	*	37.0	37.3	38.1	39.3	41.1	41.7	42.0	*
45-54 years	114	39.2	2.3	35.2	36.1	36.7	37.9	39.3	40.7	41.6	41.8	42.6
55-64 years	79	39.2	2.4	*	36.5	37.2	38.0	39.4	40.9	41.1	41.8	*
65-74 years	41	*38.2	2.1	*	*	35.4	37.2	38.5	39.4	40.2	*	*
Puerto Rican												
18-74 years	504	39.8	2.2	36.2	37.1	37.5	38.3	40.0	41.3	41.8	42.3	43.0
18-24 years	115	40.0	2.2	36.2	37.3	37.9	38.8	40.3	41.6	42.1	42.6	43.6
25-34 years	107	40.3	2.0	37.0	37.5	37.8	39.0	40.7	41.6	42.0	42.4	42.8
35-44 years	72	40.1	2.0	*	37.3	37.6	38.5	40.3	41.5	42.2	42.5	*
45-54 years	104	39.3	2.5	35.3	36.2	37.1	37.8	39.5	40.8	41.6	42.1	42.4
55-64 years	81	38.7	1.9	*	36.2	37.0	37.6	38.5	40.0	40.5	40.8	*
65-74 years	25	*38.4	1.5	*	*	*	38.0	38.6	39.4	*	*	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 31. Biacromial breadth in centimeters for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	63	16.6	1.2	*	15.3	15.5	16.0	16.3	17.5	18.0	18.2	*
1 year	119	18.4	1.3	16.3	16.6	17.1	17.5	18.3	19.4	20.0	20.2	20.4
2 years	117	20.1	1.8	17.9	18.2	18.6	19.0	20.2	21.0	21.5	21.8	22.8
3 years	96	21.7	1.3	*	19.9	20.3	20.7	21.9	22.8	23.0	23.2	*
4 years	95	23.3	1.5	*	21.5	21.8	22.3	23.3	24.1	24.6	24.9	*
5 years	109	24.4	1.5	22.1	22.6	23.1	23.5	24.3	25.4	26.1	26.4	27.3
6 years	118	25.6	1.7	22.9	23.4	24.1	24.5	25.3	26.6	27.4	27.8	28.9
7 years	96	27.1	2.8	*	25.0	25.3	25.6	26.8	27.6	28.3	28.9	*
8 years	107	27.7	1.9	24.9	25.5	26.2	26.5	27.6	28.8	29.3	30.0	31.1
9 years	125	29.9	2.0	26.7	27.5	27.8	28.5	30.0	31.5	32.2	32.5	33.0
10 years	94	31.0	1.9	*	28.6	29.0	29.6	31.0	32.3	32.9	33.3	*
11 years	115	32.1	2.5	28.4	29.5	29.9	30.5	31.9	33.6	34.6	35.2	36.2
12 years	103	33.8	1.8	30.6	31.6	32.2	32.9	33.6	34.8	35.5	36.1	37.2
13 years	89	34.6	1.6	*	32.5	33.0	33.5	34.3	36.0	36.3	36.6	*
14 years	75	35.0	2.2	*	33.0	33.2	33.9	34.9	36.2	37.1	37.6	*
15 years	85	35.5	1.8	*	33.2	33.4	34.1	35.6	36.7	37.7	38.1	*
16 years	99	35.4	2.0	*	33.3	33.6	34.5	35.6	36.5	36.7	37.4	*
17 years	75	35.6	1.6	*	33.8	34.1	34.7	35.5	36.6	37.4	37.5	*
18 years	77	35.7	1.7	*	33.7	33.9	34.6	35.8	36.8	37.3	37.7	*
19 years	75	35.9	1.8	*	33.9	34.3	34.7	35.7	37.2	37.9	38.1	*
Puerto Rican												
6-11 months	16	*	*	*	*	*	*	17.3	*	*	*	*
1 year	31	*18.9	1.4	*	*	*	18.0	19.1	20.1	*	*	*
2 years	27	*20.1	1.4	*	*	*	19.2	19.9	21.0	*	*	*
3 years	40	*21.9	1.3	*	*	20.4	20.8	22.1	23.0	23.2	*	*
4 years	34	*23.8	1.7	*	*	*	22.5	23.4	25.2	*	*	*
5 years	30	*25.3	1.4	*	*	*	24.5	25.1	25.8	*	*	*
6 years	35	*26.3	1.5	*	*	24.7	25.0	26.4	26.9	27.7	*	*
7 years	39	*27.5	1.9	*	*	26.0	26.3	27.0	29.1	29.4	*	*
8 years	30	*29.1	2.1	*	*	*	28.0	29.5	30.6	*	*	*
9 years	34	*29.7	1.9	*	*	*	28.2	29.5	31.4	*	*	*
10 years	36	*31.4	1.9	*	*	29.5	29.8	31.3	32.8	33.0	*	*
11 years	34	*32.0	2.2	*	*	*	30.6	32.4	33.3	*	*	*
12 years	34	*33.9	2.0	*	*	*	32.3	33.8	35.6	*	*	*
13 years	46	34.4	3.1	*	*	32.6	33.3	34.9	36.1	36.4	*	*
14 years	35	*35.2	1.5	*	*	33.7	34.4	35.1	36.2	37.0	*	*
15 years	46	35.2	2.1	*	*	33.4	34.2	35.3	36.6	37.2	*	*
16 years	43	*35.5	1.8	*	*	33.5	33.6	35.6	37.0	37.2	*	*
17 years	38	*35.8	1.6	*	*	34.4	34.7	36.1	36.8	37.1	*	*
18 years	37	*35.5	2.0	*	*	33.3	33.8	35.5	36.6	37.4	*	*
19 years	35	*35.5	1.5	*	*	34.1	34.2	35.5	36.6	37.2	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 32. Biacromial breadth in centimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,001	35.9	1.9	32.9	33.6	34.2	34.8	35.9	37.1	37.8	38.2	38.9
18-24 years	428	35.8	1.8	33.0	33.7	34.0	34.7	35.8	37.1	37.7	38.0	38.6
25-34 years	538	36.1	1.8	33.1	33.9	34.4	34.9	36.1	37.4	37.9	38.3	39.0
35-44 years	339	36.1	2.0	33.1	33.7	34.4	35.0	36.1	37.2	37.8	38.2	38.8
45-54 years	360	36.1	1.9	32.9	33.6	34.1	34.8	36.0	37.3	38.0	38.6	39.4
55-64 years	218	35.7	2.1	32.6	33.5	34.0	34.6	35.7	37.1	37.7	38.0	38.5
65-74 years	118	34.9	1.7	32.3	32.7	33.0	33.6	35.0	36.0	36.5	37.0	37.6
Cuban												
18-74 years	503	34.9	1.7	32.2	32.9	33.2	33.8	34.8	36.1	36.6	37.0	37.6
18-24 years	55	34.8	1.9	*	32.6	33.4	34.1	34.8	36.0	36.3	36.9	*
25-34 years	74	34.8	1.7	*	33.0	33.3	33.7	34.8	35.9	36.4	36.8	*
35-44 years	95	35.0	1.6	*	33.1	33.2	33.9	34.7	36.1	36.6	37.2	*
45-54 years	119	35.3	1.6	32.4	33.3	33.6	34.3	35.4	36.5	37.1	37.4	38.0
55-64 years	97	35.0	1.6	*	33.0	33.2	33.9	34.8	35.9	36.7	37.2	*
65-74 years	63	34.2	1.8	*	31.8	32.2	32.9	34.0	35.8	36.1	36.4	*
Puerto Rican												
18-74 years	846	35.5	2.1	32.3	33.1	33.6	34.2	35.5	36.7	37.5	38.1	39.0
18-24 years	190	35.3	2.0	32.8	33.2	33.6	34.1	35.2	36.3	37.2	37.5	38.7
25-34 years	171	35.7	1.8	32.8	33.7	34.0	34.5	35.7	36.8	37.4	38.1	38.8
35-44 years	156	35.9	2.2	31.9	33.2	33.8	34.6	35.8	37.2	38.0	38.5	39.2
45-54 years	177	35.3	2.2	32.3	32.7	33.1	33.6	35.2	36.7	37.8	38.2	38.7
55-64 years	98	35.2	1.9	*	32.6	33.3	34.1	35.1	36.7	37.2	38.3	*
65-74 years	54	34.6	2.2	*	32.2	32.8	33.2	34.6	36.0	36.2	36.4	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 33. Biiliac crest breadth in centimeters for males 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	57	12.7	1.1	*	11.5	11.6	12.0	12.6	13.2	13.6	13.9	*
1 year	105	14.1	1.0	12.5	12.7	13.1	13.4	13.9	14.8	15.2	15.4	15.9
2 years	110	15.3	.9	13.8	14.2	14.4	14.7	15.3	15.8	16.2	16.5	16.8
3 years	130	16.1	1.1	14.5	14.6	15.1	15.3	16.1	16.8	17.2	17.6	17.9
4 years	118	16.8	1.1	15.0	15.6	15.9	16.2	16.8	17.5	18.1	18.4	18.6
5 years	116	17.6	1.2	15.7	16.2	16.5	16.8	17.6	18.3	18.8	19.0	19.5
6 years	110	18.2	1.4	16.4	16.6	17.0	17.5	18.2	19.0	19.6	19.7	20.5
7 years	110	19.4	1.4	17.0	17.7	18.1	18.4	19.2	20.0	20.5	21.0	22.4
8 years	102	20.2	1.3	18.5	18.8	19.0	19.4	20.0	20.7	21.4	21.8	22.6
9 years	106	21.0	1.7	19.0	19.1	19.5	19.9	20.6	21.8	22.4	22.9	24.4
10 years	88	22.2	2.9	*	19.7	20.0	20.6	21.7	23.3	24.4	25.4	*
11 years	115	22.8	2.1	19.9	20.3	20.7	21.5	22.4	23.9	24.9	25.4	27.2
12 years	114	23.6	2.2	20.4	21.2	21.5	22.3	23.5	24.4	25.4	25.5	28.0
13 years	97	24.9	1.8	*	22.4	23.1	23.8	24.7	26.2	26.6	27.1	*
14 years	97	26.0	2.2	*	23.5	24.0	24.5	25.9	26.9	27.9	28.5	*
15 years	69	26.6	2.0	*	24.1	24.4	25.1	26.9	28.0	28.4	28.8	*
16 years	76	27.0	2.0	*	24.7	24.9	25.4	26.7	28.4	28.8	29.6	*
17 years	71	27.1	1.7	*	25.2	25.2	25.8	27.1	28.3	28.9	29.1	*
18 years	63	27.6	3.1	*	25.5	25.7	26.1	27.1	28.2	29.0	31.2	*
19 years	64	27.7	2.2	*	25.6	26.0	26.3	27.1	28.7	30.0	30.8	*
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	12.8	*	*	*	*
1 year	33	*14.0	1.2	*	*	*	13.1	14.1	15.0	*	*	*
2 years	34	*15.6	.9	*	*	*	15.0	15.5	16.2	*	*	*
3 years	38	*16.0	1.0	*	*	15.0	15.4	15.9	16.5	17.0	*	*
4 years	41	*17.2	1.5	*	*	15.6	15.8	17.0	18.2	18.8	*	*
5 years	22	*	*	*	*	*	17.1	17.9	18.7	*	*	*
6 years	37	*18.6	1.8	*	*	17.4	17.8	18.4	18.8	20.0	*	*
7 years	39	*19.5	1.4	*	*	18.1	18.5	19.3	20.3	20.4	*	*
8 years	41	*19.7	1.6	*	*	18.4	18.6	19.3	20.9	21.5	*	*
9 years	26	*21.4	2.0	*	*	*	19.6	21.1	22.7	*	*	*
10 years	38	*22.4	2.1	*	*	19.8	21.0	22.2	23.8	24.2	*	*
11 years	27	*22.1	2.2	*	*	*	20.9	21.9	23.2	*	*	*
12 years	37	*23.9	2.5	*	*	21.2	22.7	24.0	25.4	25.7	*	*
13 years	39	*24.6	2.3	*	*	22.3	22.8	24.4	26.1	27.0	*	*
14 years	40	*26.1	2.7	*	*	23.6	24.3	25.5	27.8	28.2	*	*
15 years	37	*26.3	2.2	*	*	24.3	25.0	26.1	26.8	28.1	*	*
16 years	44	*27.4	2.3	*	*	25.4	25.9	26.8	28.4	29.3	*	*
17 years	42	*27.0	1.8	*	*	25.4	25.9	26.9	28.1	29.3	*	*
18 years	35	*27.4	3.3	*	*	24.5	26.0	26.8	28.2	31.0	*	*
19 years	25	*27.2	1.9	*	*	*	25.9	26.8	28.3	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 34. Biiliac crest breadth in centimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,579	29.0	2.4	25.6	26.3	26.8	27.5	28.8	30.2	31.2	31.8	33.1
18-24 years	346	27.9	2.4	24.3	25.4	25.8	26.3	27.8	29.0	29.7	30.3	31.8
25-34 years	437	29.0	2.5	25.7	26.4	26.8	27.5	28.6	30.1	31.4	32.1	33.4
35-44 years	251	29.2	1.9	26.5	27.0	27.3	28.0	29.0	30.3	31.1	31.6	33.1
45-54 years	270	29.7	1.9	27.0	27.5	28.0	28.4	29.5	30.8	31.6	32.1	32.7
55-64 years	193	30.0	2.1	26.9	27.5	28.0	28.8	29.8	31.1	32.1	32.7	33.6
65-74 years	82	30.2	2.2	*	27.6	28.0	28.6	30.0	31.4	32.1	33.0	*
Cuban												
18-74 years	405	29.2	2.3	25.8	26.4	27.0	27.6	29.0	30.5	31.4	32.0	33.1
18-24 years	55	28.0	2.3	*	25.2	25.9	26.5	27.7	29.0	30.3	30.5	*
25-34 years	64	29.1	2.5	*	26.5	27.0	27.2	28.4	30.4	31.8	32.0	*
35-44 years	52	28.8	1.8	*	26.3	26.8	27.1	28.8	29.8	31.0	32.0	*
45-54 years	114	29.4	1.9	26.0	27.2	27.6	28.3	29.5	30.5	31.0	31.5	32.1
55-64 years	79	29.7	2.4	*	26.9	27.5	28.4	29.8	31.3	31.6	32.6	*
65-74 years	41	*30.3	2.1	*	*	28.2	29.0	29.7	31.4	33.1	*	*
Puerto Rican												
18-74 years	504	28.4	2.5	25.1	25.7	26.2	26.8	28.0	29.8	31.0	31.6	32.8
18-24 years	115	27.3	2.2	24.3	25.3	25.4	26.0	26.8	28.3	29.2	30.3	31.0
25-34 years	107	28.3	2.9	25.0	25.3	26.1	26.4	27.7	29.3	30.9	32.0	32.8
35-44 years	72	28.7	2.3	*	26.2	26.6	27.5	28.2	30.4	31.0	31.4	*
45-54 years	104	29.1	2.2	26.2	26.5	26.8	27.5	28.8	30.0	31.0	31.9	33.0
55-64 years	81	29.0	1.8	*	26.8	26.9	27.6	28.8	30.6	30.8	31.2	*
65-74 years	25	*30.6	2.6	*	*	*	29.0	30.9	32.1	*	*	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 35. Biiliac crest breadth in centimeters for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	63	12.4	0.9	*	11.3	11.4	11.7	12.3	13.0	13.4	13.7	*
1 year	119	13.8	.9	12.2	12.6	12.9	13.2	13.7	14.4	14.9	15.1	15.4
2 years	117	14.9	1.2	13.0	13.6	14.0	14.2	14.8	15.5	15.8	16.1	16.6
3 years	96	16.1	1.1	*	14.7	15.1	15.4	16.1	16.9	17.2	17.4	*
4 years	95	16.9	1.1	*	15.2	15.7	16.1	16.8	17.6	18.2	18.3	*
5 years	109	17.8	1.4	16.2	16.4	16.4	17.0	17.6	18.3	19.0	19.3	20.7
6 years	118	18.6	1.5	16.5	17.1	17.3	17.6	18.4	19.4	20.0	20.6	21.2
7 years	96	19.4	1.6	*	17.6	17.7	18.3	19.2	20.1	20.8	21.2	*
8 years	107	20.4	2.0	17.8	18.4	18.7	19.1	20.0	21.3	22.6	22.9	23.5
9 years	125	21.8	1.9	19.1	19.5	19.9	20.3	21.6	23.0	23.8	24.2	25.4
10 years	94	22.7	2.1	*	20.0	20.8	21.3	22.3	24.0	25.0	25.5	*
11 years	115	23.8	2.7	20.2	20.8	21.2	22.2	23.7	25.0	26.1	26.8	27.4
12 years	103	25.5	2.7	22.3	23.1	23.5	24.1	25.4	26.3	27.0	27.4	29.4
13 years	89	26.3	1.8	*	24.3	24.6	25.0	26.0	27.4	28.4	28.9	*
14 years	75	27.0	2.5	*	24.5	25.0	25.4	26.4	27.7	28.9	29.8	*
15 years	85	27.1	1.9	*	24.8	25.2	25.8	26.8	28.3	28.9	29.8	*
16 years	99	27.3	2.7	*	24.5	24.9	25.4	26.7	28.5	29.5	31.0	*
17 years	75	27.1	1.9	*	24.8	25.3	25.7	27.0	28.1	29.2	29.5	*
18 years	77	27.3	1.8	*	25.3	25.6	26.0	27.2	28.3	28.7	29.4	*
19 years	75	28.0	2.4	*	25.8	26.2	26.4	27.4	28.9	30.2	31.4	*
Puerto Rican												
6-11 months	16	*	*	*	*	*	*	12.7	*	*	*	*
1 year	31	*13.8	1.0	*	*	*	13.1	13.6	14.5	*	*	*
2 years	27	*15.1	1.2	*	*	*	14.1	15.3	16.1	*	*	*
3 years	40	*15.8	.9	*	*	15.0	15.2	15.7	16.4	16.6	*	*
4 years	34	*17.1	1.3	*	*	*	16.0	17.0	17.7	*	*	*
5 years	30	*18.0	1.0	*	*	*	17.3	18.1	18.8	*	*	*
6 years	35	*19.1	1.7	*	*	17.4	17.8	18.7	20.8	21.5	*	*
7 years	39	*19.8	2.2	*	*	18.1	18.5	19.1	20.5	21.5	*	*
8 years	30	*20.8	2.1	*	*	*	19.1	20.6	22.7	*	*	*
9 years	34	*21.1	1.9	*	*	*	20.0	20.8	21.8	*	*	*
10 years	36	*22.8	2.5	*	*	20.4	20.9	22.7	23.6	25.5	*	*
11 years	34	*23.6	2.9	*	*	*	22.3	23.2	25.0	*	*	*
12 years	34	*24.8	2.5	*	*	*	22.8	24.0	26.4	*	*	*
13 years	46	26.4	3.4	*	*	23.7	24.3	26.0	26.9	29.0	*	*
14 years	35	*26.3	1.8	*	*	24.2	25.0	26.3	27.3	28.5	*	*
15 years	46	26.7	2.0	*	*	24.7	25.6	26.4	28.0	28.9	*	*
16 years	43	*26.6	2.6	*	*	24.1	25.0	26.4	28.1	28.9	*	*
17 years	38	*26.7	1.9	*	*	24.6	25.7	26.7	27.4	28.6	*	*
18 years	37	*27.7	4.0	*	*	24.6	25.4	26.4	28.6	31.5	*	*
19 years	35	*27.0	2.8	*	*	24.7	25.5	26.9	27.9	28.4	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 36. Biiliac crest breadth in centimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,002	29.4	2.7	25.5	26.2	26.7	27.5	29.2	31.0	32.2	32.9	34.2
18-24 years	428	28.2	2.5	24.9	25.5	25.9	26.4	27.8	29.5	30.4	31.0	32.7
25-34 years	539	29.1	2.6	25.5	26.2	26.6	27.4	28.7	30.5	31.9	32.5	33.8
35-44 years	339	29.9	2.6	26.1	26.8	27.3	27.9	29.7	31.3	32.3	33.2	34.6
45-54 years	360	30.5	2.6	26.6	27.5	28.0	28.8	30.2	32.2	33.2	33.7	34.9
55-64 years	218	30.6	2.2	27.3	27.9	28.5	29.2	30.4	32.1	32.6	33.1	34.4
65-74 years	118	30.7	2.4	27.1	27.6	28.1	29.3	30.7	32.1	33.0	33.6	34.7
Cuban												
18-74 years	503	29.2	2.4	25.5	26.1	26.8	27.5	29.0	30.6	31.7	32.3	33.5
18-24 years	55	27.6	2.0	*	25.5	25.6	26.0	27.3	28.6	29.5	30.0	*
25-34 years	74	28.3	2.6	*	25.3	25.6	26.5	27.9	29.6	31.2	31.5	*
35-44 years	95	29.3	2.3	*	26.6	27.3	27.7	28.7	30.9	31.8	32.4	*
45-54 years	119	29.8	2.1	26.9	27.5	27.9	28.4	29.6	30.8	31.8	32.8	34.2
55-64 years	97	30.3	2.3	*	27.3	28.2	28.8	30.2	31.6	32.3	33.0	*
65-74 years	63	30.0	2.1	*	27.7	28.2	29.0	29.9	31.0	31.6	32.1	*
Puerto Rican												
18-74 years	844	28.6	2.9	24.6	25.4	25.9	26.7	28.1	30.1	31.3	32.6	34.2
18-24 years	190	27.3	2.9	23.6	24.4	24.9	25.6	27.0	28.3	29.6	30.6	33.5
25-34 years	170	28.0	2.7	24.6	25.3	25.5	26.1	27.5	29.2	30.0	31.3	33.5
35-44 years	156	29.2	2.8	25.9	26.5	26.8	27.4	28.3	30.4	31.6	33.4	34.4
45-54 years	177	29.8	2.8	26.0	26.4	26.9	27.8	29.6	31.4	32.6	33.6	34.9
55-64 years	98	29.4	2.4	*	26.1	26.6	27.8	29.5	30.9	31.8	32.1	*
65-74 years	53	29.9	2.6	*	27.0	27.7	29.1	30.1	30.8	31.7	32.5	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 37. Bitrochanteric breadth in centimeters for males 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	57	14.0	1.0	*	12.4	12.8	13.3	14.0	14.9	15.2	15.4	*
1 year	105	15.3	1.1	13.4	13.8	14.1	14.5	15.5	16.0	16.5	16.7	17.0
2 years	110	16.4	1.0	14.6	15.1	15.4	15.9	16.4	17.1	17.4	17.7	17.9
3 years	130	17.2	1.1	15.3	15.6	16.0	16.4	17.1	18.0	18.3	18.5	19.2
4 years	118	18.0	1.0	16.5	16.7	17.0	17.4	17.9	18.7	19.1	19.5	19.7
5 years	116	18.9	1.2	17.3	17.5	17.7	18.2	18.9	19.3	19.9	20.6	21.1
6 years	110	19.6	1.4	17.0	17.9	18.3	18.7	19.6	20.4	21.0	21.5	21.8
7 years	110	21.0	1.4	18.6	19.0	19.2	20.0	21.0	21.8	22.5	22.8	23.4
8 years	102	22.0	1.6	19.5	20.3	20.4	21.0	21.8	22.6	23.5	23.7	24.7
9 years	106	23.0	1.7	20.6	21.1	21.4	21.9	22.8	24.0	24.6	25.0	26.3
10 years	88	24.2	2.1	*	21.5	22.1	22.7	24.0	25.3	26.5	27.0	*
11 years	115	25.5	2.2	22.5	22.8	23.3	23.9	25.2	26.9	27.4	28.7	29.4
12 years	114	26.4	2.1	23.3	23.9	24.4	25.0	26.1	27.4	28.4	28.7	30.7
13 years	97	28.2	2.0	*	25.7	26.0	26.7	28.3	29.5	30.4	31.0	*
14 years	97	29.5	2.3	*	26.6	27.5	28.2	29.4	30.4	31.7	32.1	*
15 years	69	30.0	2.0	*	27.3	27.8	28.4	29.8	31.5	32.3	32.4	*
16 years	76	30.4	2.1	*	27.9	28.3	29.2	30.5	31.6	32.7	33.1	*
17 years	71	30.7	1.7	*	28.5	29.1	29.5	30.5	32.0	32.6	32.8	*
18 years	63	30.9	2.5	*	28.8	29.3	29.5	30.5	31.5	32.4	33.5	*
19 years	64	31.2	2.1	*	28.8	29.2	29.5	31.2	32.3	33.6	34.1	*
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	14.2	*	*	*	*
1 year	33	*15.3	1.1	*	*	*	14.5	15.2	16.2	*	*	*
2 years	34	*16.7	1.3	*	*	*	15.8	16.7	17.4	*	*	*
3 years	38	*16.9	1.2	*	*	15.7	15.9	16.9	18.0	18.5	*	*
4 years	41	*18.6	1.6	*	*	17.2	17.6	18.8	19.2	19.8	*	*
5 years	22	*	*	*	*	*	18.4	19.1	20.1	*	*	*
6 years	36	*20.4	2.0	*	*	19.1	19.2	20.0	20.8	21.3	*	*
7 years	39	*21.4	1.7	*	*	19.8	20.3	21.1	22.4	23.1	*	*
8 years	41	*22.2	2.2	*	*	20.1	20.9	21.7	23.1	25.2	*	*
9 years	26	*23.8	2.3	*	*	*	21.8	23.3	25.8	*	*	*
10 years	38	*25.2	2.2	*	*	23.0	23.5	25.1	26.7	27.5	*	*
11 years	26	*24.8	1.8	*	*	*	23.5	24.5	26.0	*	*	*
12 years	37	*27.2	2.7	*	*	24.0	24.9	27.6	28.5	29.4	*	*
13 years	39	*27.8	2.1	*	*	25.2	26.5	27.3	29.2	29.8	*	*
14 years	40	*30.1	3.5	*	*	26.8	27.8	29.6	31.3	32.6	*	*
15 years	37	*30.1	2.2	*	*	28.0	28.7	29.7	31.6	32.3	*	*
16 years	44	*31.1	2.3	*	*	29.3	29.6	30.4	32.5	33.9	*	*
17 years	42	*30.7	2.1	*	*	28.7	29.3	30.6	31.6	32.5	*	*
18 years	35	*31.1	2.8	*	*	28.8	29.4	30.7	31.5	34.0	*	*
19 years	25	*30.5	2.0	*	*	*	29.4	30.8	31.5	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 38. Bitrochanteric breadth in centimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,580	32.0	2.0	28.9	29.6	30.1	30.7	32.0	33.3	33.9	34.4	35.3
18-24 years	346	31.3	2.3	28.3	28.9	29.3	29.9	31.2	32.3	33.1	33.8	34.8
25-34 years	437	32.1	2.0	29.2	29.6	30.1	30.7	31.8	33.4	34.1	34.7	35.8
35-44 years	252	32.2	1.6	29.7	30.1	30.5	31.1	32.2	33.3	33.9	34.1	34.8
45-54 years	270	32.6	1.7	30.1	30.7	30.9	31.5	32.5	33.6	34.3	34.6	35.5
55-64 years	194	32.5	1.9	29.1	30.2	30.6	31.4	32.5	33.6	34.3	34.6	35.2
65-74 years	81	32.6	1.8	*	30.1	30.7	31.4	32.8	33.7	34.1	34.7	*
Cuban												
18-74 years	405	32.2	2.1	29.2	29.8	30.1	30.8	32.1	33.4	34.4	35.1	35.9
18-24 years	55	31.5	2.4	*	29.2	29.3	29.7	31.2	32.6	33.5	35.0	*
25-34 years	64	32.4	2.2	*	29.7	30.3	30.7	32.0	33.6	34.9	35.3	*
35-44 years	52	32.2	1.9	*	30.0	30.1	30.9	32.1	33.1	33.8	35.4	*
45-54 years	114	32.3	2.1	29.5	30.0	30.5	31.0	32.2	33.2	34.3	35.0	35.9
55-64 years	79	32.4	1.9	*	30.1	30.6	30.9	32.3	33.5	34.2	34.9	*
65-74 years	41	*32.9	1.8	*	*	30.8	31.3	32.6	34.2	34.6	*	*
Puerto Rican												
18-74 years	504	31.7	1.9	28.8	29.4	29.9	30.6	31.6	32.8	33.6	34.0	34.7
18-24 years	115	31.0	2.1	28.4	28.8	29.1	29.8	31.0	32.2	32.6	33.4	34.8
25-34 years	107	31.8	1.8	29.0	29.8	30.2	30.6	31.5	32.9	33.7	34.0	34.7
35-44 years	72	31.9	1.9	*	29.7	30.6	30.9	31.8	32.8	33.3	33.9	*
45-54 years	104	32.1	2.1	29.0	29.8	30.4	30.9	32.0	33.3	33.9	34.4	34.9
55-64 years	81	31.9	1.6	*	29.9	30.3	30.8	31.9	32.8	33.2	34.2	*
65-74 years	25	*32.2	1.4	*	*	*	31.1	32.0	33.6	*	*	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 39. Bitrochanteric breadth in centimeters for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	63	13.7	1.0	*	12.3	12.4	13.0	13.7	14.4	14.8	15.1	*
1 year	119	14.9	1.0	13.4	13.5	13.8	14.3	14.8	15.6	15.9	16.1	16.6
2 years	117	16.0	1.1	14.4	14.7	14.9	15.3	16.0	16.6	17.0	17.4	17.9
3 years	96	17.2	1.0	*	16.0	16.2	16.4	17.1	17.9	18.3	18.6	*
4 years	95	18.3	1.2	*	16.9	17.1	17.4	18.3	19.0	19.3	19.8	*
5 years	109	19.0	1.5	17.0	17.3	17.5	18.0	18.8	19.8	20.5	20.8	22.0
6 years	118	20.0	1.4	18.1	18.5	18.6	19.0	19.7	20.9	21.4	21.8	22.8
7 years	96	21.1	1.6	*	19.3	19.5	19.8	21.0	21.8	22.4	23.3	*
8 years	107	22.1	1.8	19.4	20.1	20.3	21.0	21.8	22.7	23.8	24.4	25.9
9 years	125	23.6	2.2	20.7	21.1	21.5	22.2	23.5	25.2	26.2	26.6	27.0
10 years	94	25.2	2.3	*	22.4	22.8	23.5	24.9	26.5	27.9	28.1	*
11 years	115	26.2	2.4	22.0	23.2	23.6	24.5	26.2	27.9	28.5	28.9	30.2
12 years	103	28.2	2.0	25.2	25.7	26.2	27.1	28.1	29.2	30.1	30.4	31.6
13 years	89	29.5	1.7	*	27.7	27.9	28.2	29.1	30.5	31.0	31.6	*
14 years	75	29.9	1.9	*	27.6	28.1	28.4	30.0	31.0	31.7	32.6	*
15 years	85	30.4	1.9	*	28.6	28.7	29.4	30.2	31.7	32.8	32.9	*
16 years	99	30.6	2.3	*	28.3	28.6	28.8	30.4	31.9	32.7	33.1	*
17 years	75	30.3	2.0	*	28.4	28.5	29.2	30.0	31.4	32.5	33.0	*
18 years	77	30.7	1.7	*	28.8	29.1	29.5	30.5	31.9	32.6	32.7	*
19 years	75	31.3	2.1	*	29.3	29.5	29.8	31.1	32.3	33.1	33.7	*
Puerto Rican												
6-11 months	16	*	*	*	*	*	*	13.8	*	*	*	*
1 year	31	*15.0	1.1	*	*	*	14.4	14.8	15.8	*	*	*
2 years	27	*16.1	1.3	*	*	*	15.3	16.0	17.0	*	*	*
3 years	40	*17.1	1.1	*	*	15.7	16.0	17.2	17.9	18.4	*	*
4 years	34	*18.6	1.4	*	*	*	17.7	18.4	19.6	*	*	*
5 years	30	*19.8	1.1	*	*	*	18.9	19.9	20.8	*	*	*
6 years	35	*20.9	1.6	*	*	19.4	19.7	20.4	22.8	23.0	*	*
7 years	39	*21.4	2.0	*	*	19.5	19.8	21.2	22.7	23.3	*	*
8 years	30	*23.0	2.2	*	*	*	20.8	23.1	25.0	*	*	*
9 years	34	*23.5	2.1	*	*	*	21.8	23.4	24.2	*	*	*
10 years	36	*24.9	2.0	*	*	22.7	23.3	24.5	26.6	27.1	*	*
11 years	34	*26.6	2.8	*	*	*	24.6	26.4	28.4	*	*	*
12 years	34	*28.2	2.8	*	*	*	25.8	28.1	29.8	*	*	*
13 years	45	30.1	3.4	*	*	27.4	28.2	29.6	30.4	32.2	*	*
14 years	35	*29.8	1.7	*	*	28.5	28.9	29.8	31.1	31.6	*	*
15 years	46	30.5	1.9	*	*	28.9	29.4	30.7	31.2	31.9	*	*
16 years	43	*30.7	2.3	*	*	28.4	29.1	30.5	32.1	33.1	*	*
17 years	38	*30.5	2.3	*	*	28.2	28.5	30.5	31.9	32.2	*	*
18 years	37	*30.7	3.1	*	*	28.4	29.3	29.9	32.4	33.7	*	*
19 years	35	*30.9	2.3	*	*	28.9	29.2	30.2	31.5	33.1	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 40. Bitrochanteric breadth in centimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,000	32.1	2.2	29.0	29.5	29.9	30.5	31.9	33.3	34.2	34.8	36.0
18-24 years	428	31.3	2.1	28.3	29.0	29.3	29.9	31.2	32.6	33.4	33.8	34.7
25-34 years	539	32.0	2.2	28.9	29.5	29.8	30.4	31.8	33.2	34.4	35.2	36.5
35-44 years	339	32.5	2.2	29.5	30.0	30.3	31.0	32.4	33.6	34.6	35.1	36.4
45-54 years	360	32.6	2.1	29.5	30.1	30.5	31.0	32.4	33.9	34.7	35.4	36.5
55-64 years	217	32.4	1.9	29.7	30.3	30.5	31.0	32.1	33.4	34.3	34.9	35.7
65-74 years	117	32.4	2.0	29.5	29.9	30.4	31.1	32.3	33.6	34.3	34.9	36.3
Cuban												
18-74 years	503	31.6	2.2	28.4	29.1	29.5	30.2	31.4	33.1	33.9	34.4	35.4
18-24 years	55	30.9	1.8	*	29.0	29.1	29.5	30.8	31.6	32.1	33.1	*
25-34 years	74	31.1	2.1	*	28.3	29.0	29.8	30.8	32.6	33.2	33.8	*
35-44 years	95	31.9	2.3	*	29.2	29.7	30.2	31.6	33.1	34.5	35.1	*
45-54 years	119	32.0	2.2	28.6	29.3	29.7	30.6	31.7	33.5	34.2	34.4	35.7
55-64 years	97	31.9	2.0	*	29.5	29.9	30.3	31.8	33.0	34.0	34.6	*
65-74 years	63	31.8	2.1	*	29.0	29.2	30.6	31.9	33.4	33.9	34.0	*
Puerto Rican												
18-74 years	844	31.7	2.5	28.5	29.1	29.5	30.1	31.4	33.1	34.1	34.9	36.4
18-24 years	190	31.1	2.7	28.1	28.4	28.9	29.5	30.7	32.1	33.4	34.2	36.3
25-34 years	170	31.5	2.3	28.6	29.2	29.4	30.0	31.2	32.8	33.5	34.2	35.4
35-44 years	156	32.3	2.6	28.7	29.6	30.1	30.6	31.5	33.6	35.1	35.9	37.0
45-54 years	177	32.1	2.3	28.5	29.5	30.1	30.8	31.9	33.3	34.7	35.1	36.0
55-64 years	98	31.9	1.9	*	29.1	29.8	30.8	32.0	33.2	33.6	34.3	*
65-74 years	53	32.0	2.2	*	29.8	30.0	30.4	31.6	33.3	34.0	34.7	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 41. Elbow breadth in centimeters for males 6 months-19 years of age--number examined, mean, standard deviation, and select percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	9
Mexican American												
6-11 months	57	3.7	0.2	*	3.4	3.5	3.5	3.7	3.9	4.0	4.0	
1 year	104	4.1	0.3	3.6	3.7	3.8	3.9	4.1	4.2	4.3	4.3	
2 years	110	4.3	0.3	3.8	3.9	4.0	4.1	4.2	4.5	4.5	4.6	
3 years	129	4.4	0.3	3.9	4.0	4.1	4.2	4.4	4.6	4.7	4.7	
4 years	118	4.6	0.3	4.1	4.2	4.4	4.5	4.6	4.7	4.8	4.9	
5 years	115	4.8	0.3	4.3	4.4	4.5	4.6	4.7	4.9	5.1	5.2	
6 years	109	5.0	0.4	4.4	4.6	4.7	4.7	5.0	5.2	5.3	5.4	
7 years	110	5.2	0.3	4.6	4.8	4.8	5.0	5.2	5.4	5.5	5.6	
8 years	102	5.4	0.3	5.0	5.0	5.1	5.1	5.3	5.6	5.7	5.8	
9 years	106	5.6	0.4	4.7	5.0	5.2	5.4	5.6	5.8	6.0	6.0	
10 years	88	5.8	0.4	*	5.3	5.4	5.5	5.8	6.0	6.2	6.4	
11 years	115	6.1	0.5	5.3	5.4	5.6	5.8	6.1	6.4	6.6	6.6	
12 years	114	6.3	0.4	5.8	5.8	5.9	6.0	6.3	6.6	6.7	6.8	
13 years	97	6.6	0.4	*	6.1	6.2	6.4	6.6	6.9	7.1	7.2	
14 years	97	6.8	0.4	*	6.3	6.5	6.6	6.8	7.1	7.2	7.3	
15 years	69	6.9	0.3	*	6.5	6.6	6.7	6.9	7.1	7.2	7.2	
16 years	76	7.0	0.4	*	6.5	6.6	6.8	6.9	7.2	7.3	7.4	
17 years	71	7.0	0.5	*	6.4	6.5	6.6	7.0	7.3	7.4	7.4	
18 years	63	7.0	0.4	*	6.5	6.6	6.7	7.0	7.3	7.4	7.5	
19 years	64	6.9	0.3	*	6.5	6.6	6.7	6.9	7.1	7.3	7.5	
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	3.8	*	*	*	
1 year	32	*4.0	0.3	*	*	*	3.9	4.1	4.2	*	*	
2 years	34	*4.3	0.3	*	*	*	4.1	4.3	4.5	*	*	
3 years	38	*4.4	0.3	*	*	4.0	4.2	4.4	4.7	4.7	*	
4 years	41	*4.6	0.3	*	*	4.4	4.4	4.7	4.9	5.0	*	
5 years	22	*	*	*	*	*	4.8	5.0	5.0	*	*	
6 years	37	*5.0	0.4	*	*	4.7	4.8	5.0	5.2	5.5	*	
7 years	39	*5.3	0.4	*	*	4.9	5.1	5.2	5.5	5.7	*	
8 years	42	*5.4	0.4	*	*	5.0	5.1	5.4	5.6	5.9	*	
9 years	26	*5.6	0.5	*	*	*	5.4	5.6	6.1	*	*	
10 years	38	*6.1	0.5	*	*	5.6	5.6	6.1	6.4	6.6	*	
11 years	27	*5.9	0.4	*	*	*	5.7	5.9	6.3	*	*	
12 years	37	*6.4	0.4	*	*	5.9	6.2	6.4	6.7	6.8	*	
13 years	39	*6.7	0.5	*	*	6.3	6.3	6.6	6.9	7.1	*	
14 years	40	*6.9	0.4	*	*	6.4	6.6	6.8	7.1	7.3	*	
15 years	37	*6.9	0.4	*	*	6.6	6.7	6.9	7.2	7.3	*	
16 years	44	*7.0	0.4	*	*	6.5	6.7	7.1	7.4	7.5	*	
17 years	42	*7.0	0.5	*	*	6.5	6.7	6.9	7.2	7.4	*	
18 years	35	*7.0	0.4	*	*	6.7	6.8	7.1	7.3	7.4	*	
19 years	25	*6.9	0.5	*	*	*	6.5	7.0	7.2	*	*	

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 42. Elbow breadth in centimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,578	7.1	0.4	6.5	6.6	6.7	6.8	7.1	7.4	7.5	7.7	7.9
18-24 years	346	7.0	0.4	6.4	6.5	6.6	6.7	7.0	7.3	7.4	7.5	7.6
25-34 years	435	7.1	0.4	6.5	6.6	6.7	6.8	7.1	7.3	7.5	7.6	7.8
35-44 years	251	7.1	0.4	6.4	6.6	6.7	6.9	7.1	7.3	7.5	7.6	7.8
45-54 years	270	7.3	0.4	6.6	6.8	6.9	7.0	7.2	7.5	7.7	7.9	8.0
55-64 years	194	7.3	0.4	6.6	6.8	6.9	7.0	7.3	7.6	7.7	7.8	8.1
65-74 years	82	7.3	0.5	*	6.8	6.9	7.0	7.3	7.7	7.8	8.0	*
Cuban												
18-74 years	404	7.1	0.4	6.4	6.5	6.6	6.8	7.1	7.3	7.5	7.5	7.7
18-24 years	54	6.9	0.4	*	6.4	6.4	6.6	7.0	7.2	7.3	7.4	*
25-34 years	64	7.0	0.3	*	6.6	6.7	6.8	7.0	7.3	7.4	7.5	*
35-44 years	52	7.0	0.4	*	6.4	6.5	6.8	7.1	7.3	7.4	7.5	*
45-54 years	114	7.1	0.4	6.5	6.6	6.7	6.8	7.1	7.4	7.5	7.7	7.8
55-64 years	79	7.2	0.4	*	6.6	6.7	7.0	7.2	7.4	7.5	7.6	*
65-74 years	41	*7.2	0.3	*	*	6.8	7.0	7.3	7.4	7.6	*	*
Puerto Rican												
18-74 years	504	7.0	0.4	6.3	6.5	6.5	6.7	7.0	7.2	7.4	7.5	7.6
18-24 years	115	6.9	0.4	6.3	6.3	6.5	6.6	7.0	7.2	7.4	7.6	7.7
25-34 years	107	7.0	0.4	6.4	6.5	6.5	6.7	7.0	7.2	7.4	7.5	7.6
35-44 years	73	6.9	0.4	*	6.4	6.5	6.7	6.9	7.2	7.3	7.3	*
45-54 years	103	7.0	0.4	6.5	6.6	6.7	6.8	7.0	7.3	7.4	7.5	7.6
55-64 years	81	7.0	0.4	*	6.4	6.5	6.7	7.0	7.3	7.4	7.6	*
65-74 years	25	*7.1	0.4	*	*	*	6.8	7.1	7.3	*	*	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 43. Elbow breadth in centimeters for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	62	3.6	0.2	*	3.3	3.4	3.5	3.6	3.9	3.9	3.9	*
1 year	118	3.8	0.3	3.5	3.5	3.5	3.6	3.8	4.0	4.2	4.2	4.3
2 years	118	4.0	0.3	3.6	3.7	3.8	3.9	4.0	4.2	4.3	4.4	4.4
3 years	96	4.3	0.3	*	3.9	4.0	4.1	4.3	4.4	4.5	4.6	*
4 years	96	4.5	0.6	*	4.2	4.2	4.3	4.4	4.6	4.7	4.9	*
5 years	109	4.7	0.4	4.2	4.3	4.3	4.4	4.6	4.8	5.0	5.1	5.2
6 years	118	4.8	0.3	4.3	4.5	4.5	4.6	4.7	5.0	5.1	5.2	5.4
7 years	95	5.0	0.4	*	4.5	4.7	4.8	5.0	5.1	5.3	5.5	*
8 years	107	5.2	0.4	4.6	4.7	4.8	4.9	5.1	5.4	5.5	5.6	5.8
9 years	125	5.4	0.4	4.9	5.0	5.0	5.1	5.4	5.6	5.8	5.9	6.0
10 years	94	5.7	0.4	*	5.2	5.2	5.5	5.6	6.0	6.1	6.2	*
11 years	115	5.7	0.4	5.0	5.2	5.2	5.4	5.7	6.0	6.2	6.2	6.4
12 years	103	5.9	0.3	5.4	5.5	5.6	5.7	5.9	6.1	6.2	6.4	6.6
13 years	89	6.1	0.4	*	5.6	5.7	5.9	6.0	6.2	6.5	6.6	*
14 years	75	6.0	0.4	*	5.6	5.6	5.8	6.0	6.2	6.4	6.5	*
15 years	84	6.0	0.3	*	5.5	5.6	5.8	6.0	6.2	6.3	6.4	*
16 years	99	6.0	0.3	*	5.6	5.7	5.8	6.0	6.2	6.4	6.5	*
17 years	75	6.0	0.3	*	5.6	5.7	5.8	6.0	6.2	6.4	6.4	*
18 years	77	6.0	0.4	*	5.5	5.6	5.7	6.0	6.2	6.4	6.5	*
19 years	75	6.0	0.4	*	5.6	5.7	5.8	6.0	6.3	6.4	6.5	*
Puerto Rican												
6-11 months	16	*	*	*	*	*	*	3.6	*	*	*	*
1 year	31	*3.8	0.3	*	*	*	3.6	3.9	4.0	*	*	*
2 years	27	*4.0	0.3	*	*	*	3.7	3.9	4.2	*	*	*
3 years	40	*4.3	0.3	*	*	4.0	4.1	4.3	4.5	4.5	*	*
4 years	34	*4.5	0.3	*	*	*	4.3	4.5	4.8	*	*	*
5 years	30	*4.8	0.3	*	*	*	4.6	4.8	5.0	*	*	*
6 years	35	*4.9	0.3	*	*	4.4	4.7	4.8	5.2	5.3	*	*
7 years	38	*5.1	0.4	*	*	4.6	4.8	5.0	5.4	5.6	*	*
8 years	30	*5.4	0.4	*	*	*	5.0	5.6	5.7	*	*	*
9 years	34	*5.4	0.4	*	*	*	5.2	5.4	5.7	*	*	*
10 years	36	*5.6	0.4	*	*	5.1	5.3	5.6	5.9	5.9	*	*
11 years	34	*5.7	0.4	*	*	*	5.5	5.6	6.0	*	*	*
12 years	33	*6.1	0.4	*	*	*	5.8	6.0	6.4	*	*	*
13 years	46	6.0	0.4	*	*	5.6	5.8	6.0	6.3	6.4	*	*
14 years	35	*6.1	0.4	*	*	5.9	5.9	6.0	6.2	6.3	*	*
15 years	46	6.0	0.2	*	*	5.7	5.8	6.0	6.3	6.4	*	*
16 years	43	*6.0	0.3	*	*	5.6	5.8	6.0	6.2	6.4	*	*
17 years	38	*6.0	0.4	*	*	5.6	5.7	6.0	6.3	6.4	*	*
18 years	37	*5.9	0.4	*	*	5.5	5.5	5.9	6.1	6.2	*	*
19 years	35	*6.1	0.4	*	*	5.7	5.9	6.1	6.3	6.6	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 44. Elbow breadth in centimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,000	6.2	0.5	5.6	5.7	5.8	6.0	6.2	6.5	6.7	6.8	7.1
18-24 years	427	6.1	0.4	5.5	5.6	5.7	5.8	6.1	6.3	6.5	6.5	6.7
25-34 years	539	6.1	0.4	5.5	5.7	5.7	5.9	6.1	6.4	6.5	6.6	6.8
35-44 years	339	6.3	0.4	5.6	5.8	5.9	6.0	6.2	6.5	6.7	6.8	7.1
45-54 years	359	6.4	0.5	5.8	5.9	6.0	6.1	6.4	6.7	6.9	7.1	7.3
55-64 years	218	6.5	0.4	5.9	6.0	6.1	6.2	6.4	6.8	7.0	7.1	7.3
65-74 years	118	6.6	0.5	5.9	6.0	6.1	6.3	6.6	6.9	7.1	7.2	7.4
Cuban												
18-74 years	501	6.1	0.4	5.5	5.6	5.7	5.8	6.1	6.4	6.5	6.6	6.8
18-24 years	54	5.9	0.3	*	5.3	5.6	5.7	5.9	6.1	6.2	6.3	*
25-34 years	73	6.0	0.3	*	5.5	5.6	5.7	6.0	6.2	6.3	6.4	*
35-44 years	95	6.1	0.4	*	5.5	5.7	5.8	6.1	6.4	6.5	6.6	*
45-54 years	119	6.3	0.4	5.6	5.7	5.8	6.0	6.3	6.6	6.7	6.7	7.0
55-64 years	97	6.3	0.3	*	5.9	5.9	6.0	6.3	6.5	6.7	6.7	*
65-74 years	63	6.3	0.5	*	5.7	5.8	6.1	6.3	6.5	6.7	6.8	*
Puerto Rican												
18-74 years	845	6.1	0.4	5.5	5.6	5.7	5.9	6.1	6.4	6.5	6.7	6.9
18-24 years	190	6.0	0.4	5.4	5.5	5.6	5.8	6.0	6.3	6.4	6.5	6.6
25-34 years	171	6.1	0.4	5.5	5.6	5.7	5.8	6.0	6.3	6.5	6.6	6.8
35-44 years	156	6.2	0.4	5.5	5.6	5.7	5.9	6.1	6.4	6.6	6.7	7.0
45-54 years	177	6.2	0.4	5.7	5.8	5.9	6.0	6.2	6.5	6.6	6.7	7.0
55-64 years	97	6.4	0.4	*	5.8	5.9	6.1	6.3	6.5	6.7	6.9	*
65-74 years	54	6.3	0.4	*	5.8	5.9	6.1	6.3	6.5	6.8	6.9	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 45. Triceps skinfold in millimeters for males 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	57	10.5	2.6	*	7.5	8.0	8.5	10.0	12.0	13.0	14.5	*
1 year	104	10.2	3.2	6.5	6.5	7.0	8.0	10.0	11.5	13.0	14.0	16.0
2 years	111	10.2	2.7	6.0	6.5	7.0	8.0	10.0	12.0	13.0	13.5	14.5
3 years	130	10.0	3.1	6.0	6.5	7.0	7.5	9.5	11.5	13.0	14.0	16.0
4 years	118	9.3	2.7	6.0	6.0	7.0	8.0	9.0	10.5	11.5	13.0	14.5
5 years	116	9.3	3.8	5.0	5.5	6.0	7.0	8.0	10.5	13.0	15.0	17.0
6 years	110	8.8	3.2	4.5	5.0	6.0	7.0	8.0	10.0	11.5	13.0	15.0
7 years	110	10.6	5.1	5.5	6.0	6.0	7.0	9.0	12.5	15.0	16.5	24.0
8 years	102	11.1	5.6	5.5	6.0	6.5	7.0	10.0	13.0	17.0	19.0	25.0
9 years	106	12.3	6.6	5.0	6.0	7.0	7.5	10.0	15.5	20.5	22.0	27.0
10 years	88	14.2	7.3	*	5.5	7.0	8.5	11.5	19.0	22.5	26.0	*
11 years	115	15.7	7.4	6.0	7.5	8.5	11.0	14.5	19.5	22.5	25.0	32.5
12 years	114	13.4	7.2	6.0	7.0	8.0	8.5	11.0	17.0	21.0	23.0	28.5
13 years	97	12.8	7.3	*	6.0	7.0	8.0	10.5	15.0	20.0	23.5	*
14 years	97	13.0	7.8	*	6.0	6.0	7.0	9.5	19.0	21.0	23.5	*
15 years	69	11.0	6.6	*	5.0	6.0	7.0	9.0	12.5	16.5	19.0	*
16 years	76	12.1	7.4	*	5.5	6.5	7.5	10.0	14.0	17.0	22.0	*
17 years	71	10.5	5.5	*	5.5	6.0	6.5	9.0	12.0	15.5	18.5	*
18 years	63	12.0	6.5	*	6.0	6.5	7.0	10.5	14.5	17.5	20.0	*
19 years	64	13.1	7.0	*	6.0	6.5	7.5	12.5	16.0	20.0	24.0	*
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	10.0	*	*	*	*
1 year	32	*9.5	2.5	*	*	*	8.0	9.0	10.0	*	*	*
2 years	34	*10.5	3.5	*	*	*	8.0	9.5	12.0	*	*	*
3 years	38	*8.9	2.2	*	*	7.0	7.5	8.5	10.0	11.5	*	*
4 years	41	*10.6	3.7	*	*	7.0	8.5	9.5	11.0	15.0	*	*
5 years	22	*	*	*	*	*	7.0	9.0	12.0	*	*	*
6 years	37	*11.2	5.7	*	*	7.0	7.0	9.5	13.0	18.0	*	*
7 years	39	*10.4	4.7	*	*	7.0	8.0	9.0	12.0	16.0	*	*
8 years	41	*11.4	5.9	*	*	6.0	8.0	10.0	14.0	18.0	*	*
9 years	26	*15.1	7.3	*	*	*	10.0	12.5	19.5	*	*	*
10 years	38	*16.4	9.1	*	*	7.0	8.0	13.0	21.5	25.0	*	*
11 years	27	*12.3	5.6	*	*	*	8.0	10.0	15.5	*	*	*
12 years	37	*12.4	7.8	*	*	6.0	6.5	9.5	14.5	21.5	*	*
13 years	39	*12.6	6.4	*	*	6.5	8.0	11.0	15.0	18.0	*	*
14 years	40	*12.1	7.1	*	*	6.5	6.5	9.5	15.0	19.0	*	*
15 years	37	*10.6	7.2	*	*	5.0	6.0	9.0	12.5	13.5	*	*
16 years	44	*14.0	8.8	*	*	7.0	8.0	10.0	17.0	25.0	*	*
17 years	42	*11.3	6.7	*	*	5.5	6.0	9.0	16.0	20.0	*	*
18 years	35	*11.8	7.1	*	*	6.5	7.0	10.0	13.5	18.0	*	*
19 years	25	*9.4	4.7	*	*	*	6.0	8.0	10.5	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 46. Triceps skinfold in millimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,580	13.1	6.8	5.0	6.0	7.0	8.5	12.0	16.0	19.0	22.0	25.5
18-24 years	347	12.4	6.9	4.5	5.0	6.0	7.5	11.0	16.0	18.5	21.0	24.5
25-34 years	435	14.1	7.6	5.5	7.0	7.5	9.0	12.5	17.0	21.0	24.0	28.5
35-44 years	252	12.6	5.9	5.0	6.0	7.0	8.5	12.0	16.0	18.0	19.5	22.5
45-54 years	270	12.6	5.9	5.5	6.5	7.0	8.0	11.5	16.0	18.5	21.0	25.0
55-64 years	194	12.9	6.5	5.0	6.0	6.5	8.0	12.0	15.5	18.5	21.5	25.5
65-74 years	82	12.7	6.2	*	6.0	7.0	8.0	11.5	15.5	19.5	21.5	*
Cuban												
18-74 years	405	13.7	6.8	5.0	6.5	7.5	9.0	12.5	17.0	19.0	22.5	27.5
18-24 years	55	14.0	7.7	*	6.0	7.5	9.0	11.5	18.0	21.0	24.0	*
25-34 years	64	14.7	8.3	*	5.0	6.0	8.0	14.0	18.5	23.0	29.0	*
35-44 years	52	13.9	6.0	*	7.5	8.0	9.0	13.0	17.0	19.0	21.5	*
45-54 years	114	12.8	6.1	6.0	7.0	7.5	8.5	12.0	15.0	18.0	20.0	24.0
55-64 years	79	13.1	5.9	*	7.0	8.0	9.0	12.0	16.0	17.5	19.5	*
65-74 years	41	*13.6	5.0	*	*	9.5	11.0	13.5	16.0	19.0	*	*
Puerto Rican												
18-74 years	504	12.0	6.1	4.5	5.5	6.0	8.0	11.0	15.5	17.5	19.0	23.0
18-24 years	115	10.9	5.7	4.5	5.0	6.0	6.5	9.5	13.0	16.0	19.0	24.5
25-34 years	107	12.3	6.3	4.0	5.5	6.0	7.5	11.0	16.0	18.0	19.5	24.0
35-44 years	73	12.9	6.7	*	6.0	7.0	8.0	12.5	16.0	17.5	19.0	*
45-54 years	103	11.7	6.1	4.0	5.0	6.0	8.0	10.0	15.5	17.0	17.5	22.0
55-64 years	81	11.6	4.6	*	6.0	6.5	8.0	11.5	14.0	16.5	18.5	*
65-74 years	25	*13.8	4.2	*	*	*	10.5	14.0	15.5	*	*	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 47. Triceps skinfold in millimeters for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	63	10.4	2.5	*	7.5	8.0	9.0	10.5	12.0	12.5	13.0	*
1 year	119	9.8	2.5	6.0	7.0	7.0	8.0	9.5	11.5	12.5	13.0	14.0
2 years	118	10.6	2.9	7.0	7.0	7.5	8.5	10.5	13.0	13.5	14.0	16.0
3 years	96	10.5	2.9	*	7.0	7.5	8.5	10.5	12.5	13.0	14.5	*
4 years	96	11.0	3.4	*	7.5	8.0	8.0	10.5	13.0	14.5	16.0	*
5 years	109	10.6	4.2	6.0	7.0	7.5	7.5	10.0	12.0	13.5	14.0	17.5
6 years	118	11.3	4.9	6.0	6.5	7.0	8.0	10.0	13.0	16.0	18.5	22.5
7 years	96	12.7	5.3	*	7.0	8.0	9.0	11.0	15.5	17.5	21.5	*
8 years	107	13.7	6.1	6.5	7.5	8.0	9.0	12.5	16.0	19.0	23.5	26.0
9 years	125	15.2	5.8	6.5	8.5	10.0	11.0	14.5	19.0	21.0	23.0	26.0
10 years	94	16.4	7.0	*	8.0	9.0	11.0	15.0	22.0	25.0	26.5	*
11 years	115	15.0	6.8	7.0	8.0	8.5	10.0	14.0	18.0	21.5	25.0	26.0
12 years	103	16.9	6.7	8.0	9.0	10.0	11.5	16.0	21.5	24.0	25.5	30.0
13 years	89	18.5	6.7	*	11.0	11.5	12.5	17.0	22.5	26.0	27.0	*
14 years	75	19.6	7.1	*	11.5	13.0	15.0	19.5	22.5	24.5	30.0	*
15 years	85	19.8	7.5	*	11.5	13.0	14.5	18.5	24.5	26.0	27.0	*
16 years	99	20.4	8.5	*	12.0	12.0	14.0	18.0	25.5	28.5	32.5	*
17 years	75	19.3	6.6	*	12.0	13.0	13.5	18.5	24.5	26.0	29.0	*
18 years	77	21.5	7.5	*	12.0	14.5	17.0	20.5	25.5	27.5	30.0	*
19 years	75	21.4	8.4	*	12.0	13.0	15.0	21.5	25.0	28.0	31.5	*
Puerto Rican												
6-11 months	15	*	*	*	*	*	*	10.5	*	*	*	*
1 year	31	*9.2	2.5	*	*	*	7.0	9.0	11.0	*	*	*
2 years	27	*11.3	3.2	*	*	*	8.5	10.0	13.5	*	*	*
3 years	40	*10.3	2.5	*	*	8.0	9.0	10.0	12.0	12.5	*	*
4 years	34	*11.2	3.3	*	*	*	9.0	11.0	13.0	*	*	*
5 years	30	*11.1	3.7	*	*	*	7.5	11.0	13.5	*	*	*
6 years	35	*13.9	6.2	*	*	7.5	8.0	13.0	18.5	24.0	*	*
7 years	39	*12.0	6.4	*	*	6.0	8.0	9.0	15.0	18.5	*	*
8 years	30	*15.2	6.4	*	*	*	10.0	12.5	21.0	*	*	*
9 years	34	*13.7	6.5	*	*	*	9.0	11.5	18.0	*	*	*
10 years	36	*13.8	5.6	*	*	7.0	9.0	13.5	18.5	20.0	*	*
11 years	34	*13.6	7.5	*	*	*	7.5	11.0	19.0	*	*	*
12 years	34	*17.1	8.9	*	*	*	11.0	13.0	23.0	*	*	*
13 years	46	19.4	7.9	*	*	11.5	13.0	19.0	24.0	26.0	*	*
14 years	35	*19.3	7.6	*	*	11.5	14.0	18.0	23.5	28.5	*	*
15 years	46	20.4	7.2	*	*	12.5	15.0	20.0	25.5	26.5	*	*
16 years	43	*21.5	8.2	*	*	14.0	16.0	22.5	25.5	28.0	*	*
17 years	38	*18.9	7.8	*	*	11.5	12.0	17.0	25.0	28.0	*	*
18 years	37	*20.6	8.5	*	*	12.0	14.0	19.0	25.5	27.0	*	*
19 years	35	*19.2	8.8	*	*	12.5	13.0	17.5	23.0	25.5	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 48. Triceps skinfold in millimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,001	26.0	9.5	12.5	14.5	16.0	19.0	25.0	32.0	36.0	39.0	43.0
18-24 years	428	22.9	9.1	11.0	12.5	14.0	16.0	21.5	28.0	32.0	35.0	40.5
25-34 years	539	25.3	9.4	12.0	13.5	15.0	18.0	24.5	31.5	35.0	37.5	42.0
35-44 years	339	27.6	9.3	14.5	17.0	19.0	21.0	26.0	33.6	38.0	40.5	44.0
45-54 years	360	29.4	9.9	15.5	17.5	20.0	22.0	28.0	36.0	40.0	43.0	47.5
55-64 years	217	29.0	8.4	15.5	18.5	20.5	24.5	28.0	33.0	37.0	40.1	45.0
65-74 years	118	25.3	8.6	13.0	16.0	16.5	19.0	23.5	30.0	36.5	39.0	42.5
Cuban												
18-74 years	501	26.0	7.9	12.0	15.5	18.0	21.0	26.0	31.0	34.0	36.0	38.5
18-24 years	55	21.2	7.7	*	11.5	13.0	14.0	21.0	27.0	29.0	32.0	*
25-34 years	72	22.8	7.2	*	13.5	17.0	19.0	22.5	26.5	30.0	32.6	*
35-44 years	95	26.5	8.1	*	17.0	19.0	22.0	26.0	31.0	34.0	36.0	*
45-54 years	119	28.7	7.2	15.0	19.5	20.5	24.0	28.5	33.0	36.0	37.5	39.0
55-64 years	97	28.6	7.1	*	19.0	22.5	24.0	28.5	34.0	36.0	37.5	*
65-74 years	63	26.4	6.7	*	19.0	20.5	21.0	25.0	32.5	34.0	35.1	*
Puerto Rican												
18-74 years	844	24.8	9.9	11.0	13.0	14.5	17.0	24.0	31.5	35.0	38.0	42.0
18-24 years	190	21.0	9.2	10.0	11.5	12.5	14.0	19.5	26.5	32.0	34.0	36.5
25-34 years	171	23.1	9.2	10.5	12.0	14.0	16.0	22.0	28.5	33.0	35.5	38.1
35-44 years	155	27.8	10.2	13.0	15.5	18.0	20.5	27.0	35.0	38.5	40.5	45.0
45-54 years	177	27.8	8.6	14.0	18.0	19.5	21.5	27.5	33.0	35.0	38.5	43.1
55-64 years	98	26.8	9.0	*	15.5	16.5	21.0	25.0	33.0	35.5	38.0	*
65-74 years	53	27.7	11.2	*	11.5	15.5	19.5	29.0	34.0	39.5	40.0	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 49. Subscapular skinfold in millimeters for males 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	57	6.8	1.8	*	5.0	5.0	5.5	6.5	8.0	9.0	10.0	*
1 year	104	6.4	2.0	4.0	4.5	4.5	5.0	6.0	7.5	8.5	9.0	10.0
2 years	111	6.2	2.1	3.5	4.0	4.0	4.5	6.0	7.5	8.0	8.5	11.0
3 years	130	5.9	2.3	3.0	4.0	4.0	4.5	5.5	7.0	8.0	8.5	11.0
4 years	118	5.4	1.5	3.5	4.0	4.0	4.5	5.0	6.0	6.5	7.0	8.0
5 years	116	5.6	3.5	3.0	3.5	4.0	4.0	4.5	6.0	7.0	8.0	11.0
6 years	110	5.5	3.3	3.0	3.5	4.0	4.0	4.5	5.5	6.5	8.0	11.0
7 years	110	7.0	5.4	3.5	4.0	4.0	4.0	5.0	7.0	9.0	10.5	19.5
8 years	102	7.3	5.5	3.5	4.0	4.0	4.5	5.0	7.0	11.0	15.0	20.5
9 years	106	8.3	6.2	4.0	4.0	4.0	4.5	5.5	9.0	14.5	18.5	25.0
10 years	88	11.0	8.0	*	4.0	4.5	5.0	7.0	16.5	21.0	25.5	*
11 years	115	11.8	8.2	4.0	4.5	5.0	6.0	9.0	15.0	19.5	23.0	34.0
12 years	114	10.7	8.3	4.5	4.5	5.0	6.0	7.5	12.0	18.0	23.0	27.0
13 years	97	9.9	6.5	*	5.0	5.5	6.5	8.0	11.5	13.5	17.5	*
14 years	97	11.7	8.7	*	5.5	5.5	6.5	8.5	12.5	16.5	25.0	*
15 years	69	10.0	6.4	*	5.5	6.0	6.5	8.0	11.5	13.5	16.0	*
16 years	76	12.7	8.6	*	6.0	6.5	7.5	10.5	13.5	19.0	23.0	*
17 years	71	11.7	6.1	*	7.0	7.5	8.0	10.0	13.0	17.0	18.0	*
18 years	63	14.2	8.6	*	7.0	7.5	8.0	11.0	16.0	22.5	27.0	*
19 years	64	16.0	8.9	*	7.5	8.0	9.5	12.5	21.0	26.0	29.0	*
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	7.5	*	*	*	*
1 year	32	*6.4	2.4	*	*	*	4.5	6.0	7.5	*	*	*
2 years	34	*6.3	2.9	*	*	*	4.5	6.0	7.0	*	*	*
3 years	38	*5.3	1.1	*	*	4.0	4.5	5.0	6.0	6.5	*	*
4 years	41	*6.5	2.7	*	*	4.5	5.0	6.0	7.0	9.0	*	*
5 years	22	*	*	*	*	*	4.0	4.5	7.0	*	*	*
6 years	37	*7.3	5.2	*	*	4.0	4.5	5.0	9.0	10.0	*	*
7 years	39	*6.2	4.0	*	*	4.0	4.0	5.0	6.0	8.0	*	*
8 years	41	*7.1	4.2	*	*	4.0	4.0	6.0	8.0	10.5	*	*
9 years	26	*11.9	9.1	*	*	*	5.0	8.0	15.0	*	*	*
10 years	38	*11.5	8.4	*	*	5.0	5.5	8.0	13.0	25.5	*	*
11 years	27	*8.1	5.9	*	*	*	5.0	6.0	8.0	*	*	*
12 years	37	*10.5	9.1	*	*	4.5	5.0	7.0	11.0	21.0	*	*
13 years	39	*10.5	7.6	*	*	5.0	5.0	8.0	11.0	18.5	*	*
14 years	40	*11.8	8.4	*	*	5.5	6.5	10.0	13.5	15.5	*	*
15 years	37	*11.1	8.4	*	*	5.5	7.0	8.0	11.0	14.5	*	*
16 years	44	*15.2	10.3	*	*	7.0	8.0	11.5	20.0	28.0	*	*
17 years	42	*12.5	7.2	*	*	7.0	7.5	10.0	15.0	23.0	*	*
18 years	35	*13.1	7.6	*	*	7.0	7.0	10.0	15.5	22.0	*	*
19 years	25	*11.7	6.0	*	*	*	8.0	9.0	13.0	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 50. Subscapular skinfold in millimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,578	19.2	9.0	7.5	9.0	10.0	12.0	17.5	24.5	28.5	31.5	35.5
18-24 years	346	15.9	8.5	7.0	7.5	8.0	9.5	13.5	20.0	25.0	27.5	31.5
25-34 years	436	20.2	9.2	8.0	10.0	11.0	13.0	19.0	25.0	30.0	33.0	36.0
35-44 years	252	20.4	8.2	9.0	11.0	11.5	14.0	19.5	25.5	29.0	32.0	36.0
45-54 years	268	20.6	8.7	8.5	11.0	12.5	15.0	20.0	25.0	29.0	31.5	35.0
55-64 years	194	20.9	9.7	7.5	9.5	11.0	14.0	20.0	26.5	31.5	34.5	39.0
65-74 years	82	18.3	8.5	*	10.0	10.5	12.0	16.0	24.0	26.0	29.5	*
Cuban												
18-74 years	404	19.6	8.5	8.0	9.0	11.0	13.0	19.0	25.5	29.0	31.0	36.0
18-24 years	54	16.5	8.6	*	8.0	8.0	9.0	14.0	20.0	26.0	31.0	*
25-34 years	64	18.6	8.9	*	8.0	10.0	11.0	18.0	24.5	27.0	31.5	*
35-44 years	52	20.7	7.7	*	11.0	12.0	13.0	20.5	27.0	30.0	31.0	*
45-54 years	114	20.6	8.5	8.0	10.0	12.0	14.0	20.0	26.0	29.0	32.0	37.0
55-64 years	79	20.4	8.6	*	10.5	13.0	14.0	19.0	25.0	30.0	34.5	*
65-74 years	41	*19.9	7.6	*	*	12.0	13.5	19.5	25.0	28.0	*	*
Puerto Rican												
18-74 years	503	18.2	9.0	7.0	8.0	9.0	11.0	16.5	23.5	28.0	31.0	35.0
18-24 years	115	13.6	6.7	6.0	7.0	8.0	8.5	12.0	16.5	20.5	22.5	27.0
25-34 years	107	18.1	9.8	7.0	7.5	8.5	11.0	15.0	22.0	30.0	33.1	39.5
35-44 years	73	20.7	8.7	*	9.5	11.5	14.0	21.0	26.5	29.0	30.5	*
45-54 years	102	19.5	8.3	9.0	9.5	10.0	13.5	18.0	25.0	28.0	30.5	34.6
55-64 years	81	20.5	8.4	*	9.5	12.0	15.0	19.0	25.5	30.0	33.6	*
65-74 years	25	*22.3	9.8	*	*	*	16.0	18.5	27.0	*	*	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 51. Subscapular skinfold in millimeters for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	63	7.8	2.8	*	5.5	5.5	6.0	7.5	8.5	9.5	11.0	*
1 year	119	6.6	2.1	4.0	4.5	4.5	5.0	6.0	7.5	8.5	9.5	10.0
2 years	118	6.8	2.5	4.0	4.5	5.0	5.0	6.5	7.5	8.5	9.5	11.5
3 years	96	6.3	2.3	*	4.0	4.5	5.0	6.0	7.0	7.5	9.0	*
4 years	96	6.3	2.4	*	4.0	4.5	4.5	6.0	7.0	8.5	9.0	*
5 years	109	6.8	4.4	3.5	3.5	4.0	4.5	5.5	7.5	9.5	10.0	15.5
6 years	118	7.2	5.0	3.5	4.0	4.0	4.5	5.5	7.5	9.5	14.5	19.0
7 years	96	8.5	5.7	*	4.5	4.5	5.0	6.0	10.0	13.0	16.0	*
8 years	107	9.2	6.8	4.0	4.0	4.5	5.0	7.0	10.0	15.5	21.5	25.0
9 years	125	11.9	7.2	4.0	4.5	5.0	6.0	9.5	16.5	20.0	23.0	26.0
10 years	94	12.6	9.0	*	5.0	5.5	6.5	9.0	16.5	23.0	24.0	*
11 years	115	11.3	7.1	4.0	5.5	6.0	6.0	9.5	14.0	18.5	22.0	24.0
12 years	103	13.4	7.5	5.5	6.0	7.0	7.5	11.5	16.0	20.5	23.0	31.0
13 years	89	14.5	8.0	*	6.5	7.0	7.5	13.0	17.0	22.0	25.0	*
14 years	75	15.6	7.9	*	7.0	8.0	10.0	14.0	19.0	24.5	27.0	*
15 years	85	17.2	8.4	*	8.0	9.0	10.5	16.0	21.5	25.5	28.0	*
16 years	99	17.7	11.2	*	8.0	8.5	9.5	13.5	21.5	28.5	32.5	*
17 years	75	18.1	8.3	*	8.5	10.0	11.0	16.0	23.0	28.0	30.5	*
18 years	77	18.7	8.4	*	9.5	11.5	12.5	17.0	22.5	26.0	31.0	*
19 years	75	21.4	11.8	*	10.5	11.5	13.0	17.0	25.5	36.5	41.0	*
Puerto Rican												
6-11 months	15	*	*	*	*	*	*	6.5	*	*	*	*
1 year	31	*6.3	1.7	*	*	*	5.0	6.0	7.5	*	*	*
2 years	27	*7.5	3.2	*	*	*	5.5	7.0	8.5	*	*	*
3 years	40	*5.8	2.1	*	*	4.0	4.5	5.0	6.5	7.0	*	*
4 years	34	*8.0	5.2	*	*	*	5.0	6.5	9.0	*	*	*
5 years	30	*6.8	3.6	*	*	*	4.0	5.5	8.0	*	*	*
6 years	35	*9.3	5.7	*	*	4.5	5.0	6.0	12.0	16.5	*	*
7 years	39	*8.4	7.2	*	*	5.0	5.0	6.0	9.0	11.0	*	*
8 years	30	*11.3	7.6	*	*	*	5.0	7.5	18.0	*	*	*
9 years	34	*10.4	7.5	*	*	*	5.0	7.0	11.0	*	*	*
10 years	36	*11.9	7.4	*	*	5.5	6.0	9.0	15.0	18.0	*	*
11 years	34	*10.1	6.4	*	*	*	5.0	7.0	13.0	*	*	*
12 years	34	*14.1	10.1	*	*	*	7.0	10.5	18.0	*	*	*
13 years	46	16.4	9.2	*	*	7.0	8.0	13.5	24.0	26.5	*	*
14 years	35	*14.4	6.0	*	*	7.5	9.0	14.0	20.0	21.0	*	*
15 years	46	18.1	8.5	*	*	10.0	13.0	16.5	22.0	30.0	*	*
16 years	43	*17.6	9.2	*	*	10.0	11.5	14.5	23.0	27.0	*	*
17 years	38	*15.3	7.6	*	*	7.5	9.0	13.5	21.0	24.0	*	*
18 years	37	*18.3	10.8	*	*	9.0	9.5	16.0	25.0	28.0	*	*
19 years	35	*13.6	10.6	*	*	6.5	7.0	10.0	13.0	21.5	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 52. Subscapular skinfold in millimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,001	25.1	11.4	9.0	11.5	13.0	16.0	24.0	32.1	37.0	40.1	46.5
18-24 years	428	21.2	10.8	8.0	9.5	11.0	13.0	19.0	26.0	33.0	37.0	42.5
25-34 years	539	24.5	11.3	8.0	10.0	12.0	15.0	24.0	31.0	36.0	39.0	46.0
35-44 years	339	27.5	10.9	11.5	14.0	15.5	19.0	26.5	34.0	38.5	43.0	47.1
45-54 years	360	28.8	11.6	12.0	14.5	16.0	20.0	29.0	36.0	40.0	44.0	50.0
55-64 years	218	28.4	10.4	12.0	16.0	18.0	21.5	27.0	34.0	41.0	44.0	46.6
65-74 years	117	23.0	10.1	8.5	11.5	12.5	15.5	20.5	28.0	34.6	37.0	44.0
Cuban												
18-74 years	500	25.5	10.2	9.5	12.0	14.0	17.0	25.0	32.1	36.1	39.0	43.5
18-24 years	55	19.2	9.9	*	8.0	10.0	11.0	16.0	26.0	31.0	32.6	*
25-34 years	73	21.3	9.6	*	9.0	10.0	12.5	21.5	30.0	32.0	32.6	*
35-44 years	95	27.2	9.9	*	13.0	16.0	20.5	27.0	34.5	38.0	41.0	*
45-54 years	117	28.6	9.9	13.5	16.0	20.5	21.5	29.0	35.0	38.0	43.0	47.6
55-64 years	97	28.4	9.7	*	15.0	16.0	22.5	28.0	35.0	39.0	42.0	*
65-74 years	63	25.5	7.6	*	15.5	16.0	19.5	26.0	31.5	33.5	34.5	*
Puerto Rican												
18-74 years	845	23.6	11.8	7.5	9.0	11.0	14.0	23.0	31.5	35.6	40.0	45.0
18-24 years	190	18.2	11.3	6.5	7.5	8.0	9.5	14.5	24.5	30.5	34.6	43.0
25-34 years	171	21.6	11.2	7.5	10.0	11.0	13.0	18.5	29.0	33.0	35.5	42.0
35-44 years	156	26.6	11.0	9.0	12.0	14.0	18.5	26.5	33.5	37.0	41.0	44.5
45-54 years	177	28.7	10.8	10.5	15.0	16.0	21.5	28.5	35.5	40.0	43.5	48.0
55-64 years	98	26.9	10.7	*	12.0	13.5	19.5	27.0	34.0	38.0	40.5	*
65-74 years	53	25.9	12.2	*	12.0	14.0	16.5	25.0	31.5	39.1	46.0	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 53. Iliac crest skinfold in millimeters for males 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	57	7.0	2.3	*	4.5	4.5	5.0	6.5	8.5	10.0	10.5	*
1 year	104	6.9	3.5	3.5	4.0	4.0	5.0	6.0	8.0	9.5	11.0	13.0
2 years	111	6.7	2.7	2.5	3.5	4.0	5.0	6.0	8.0	10.0	11.0	12.5
3 years	129	6.8	4.2	3.0	3.0	3.5	4.0	6.0	7.5	9.0	12.0	16.0
4 years	118	6.5	3.2	3.0	3.5	4.0	4.0	6.0	7.5	10.0	11.5	13.0
5 years	116	6.5	5.1	2.5	3.0	3.0	4.0	5.0	7.0	10.0	12.0	18.0
6 years	110	6.7	4.8	2.5	3.0	3.5	4.0	5.0	7.0	9.5	12.5	16.5
7 years	110	9.2	8.6	3.0	3.5	4.0	4.5	6.0	9.5	15.5	20.0	31.0
8 years	102	10.6	9.0	3.5	3.5	4.0	5.0	7.0	12.0	18.5	25.0	31.5
9 years	106	12.7	11.2	3.0	4.0	4.5	5.0	8.0	16.0	26.5	33.0	40.0
10 years	88	16.8	13.3	*	4.0	5.0	6.0	11.0	25.5	35.0	37.0	*
11 years	115	19.5	12.7	5.0	6.0	7.0	9.0	16.5	27.0	36.0	40.5	45.0
12 years	114	16.4	12.0	4.0	5.5	6.0	7.5	12.0	22.0	32.0	35.0	39.0
13 years	97	16.3	11.6	*	5.5	6.0	7.5	12.0	22.0	28.5	31.5	*
14 years	97	18.2	13.1	*	6.5	7.0	7.5	12.0	26.5	36.0	39.6	*
15 years	69	15.2	9.9	*	5.5	6.5	8.0	12.0	20.5	26.0	31.5	*
16 years	76	18.4	12.5	*	7.5	8.0	9.0	13.5	22.0	30.5	39.5	*
17 years	71	15.5	9.7	*	6.5	8.0	8.5	12.0	20.0	27.5	31.0	*
18 years	63	19.1	11.8	*	7.0	8.0	9.0	16.0	25.5	32.5	35.5	*
19 years	64	23.1	12.4	*	7.0	9.0	11.0	23.5	32.0	38.0	40.0	*
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	6.5	*	*	*	*
1 year	32	*6.0	2.1	*	*	*	4.5	5.5	7.0	*	*	*
2 years	34	*7.3	5.1	*	*	*	4.5	6.0	8.0	*	*	*
3 years	38	*5.8	2.3	*	*	4.0	4.5	5.0	6.5	7.5	*	*
4 years	41	*8.3	4.6	*	*	4.5	5.0	7.0	10.5	12.0	*	*
5 years	22	*	*	*	*	*	4.5	5.5	10.0	*	*	*
6 years	37	*10.1	9.0	*	*	4.0	4.5	6.5	11.5	21.5	*	*
7 years	39	*8.8	7.4	*	*	4.0	5.0	6.0	10.0	13.0	*	*
8 years	41	*10.8	9.1	*	*	3.5	4.0	8.0	13.0	19.5	*	*
9 years	26	*17.8	13.9	*	*	*	7.0	10.0	29.5	*	*	*
10 years	38	*17.8	13.7	*	*	5.0	5.5	12.0	28.5	37.0	*	*
11 years	27	*12.8	9.5	*	*	*	6.5	8.5	20.0	*	*	*
12 years	37	*17.0	15.6	*	*	5.5	6.0	9.5	18.0	38.0	*	*
13 years	39	*16.0	10.9	*	*	5.5	6.5	13.0	22.5	30.0	*	*
14 years	40	*18.3	12.6	*	*	8.0	9.0	15.0	24.5	28.5	*	*
15 years	37	*15.7	13.3	*	*	6.0	6.5	8.0	20.5	31.0	*	*
16 years	44	*19.6	13.5	*	*	7.0	10.0	15.0	25.5	36.6	*	*
17 years	42	*17.3	12.7	*	*	7.5	9.5	12.0	23.0	27.5	*	*
18 years	35	*16.9	10.4	*	*	8.0	8.5	14.0	20.5	32.1	*	*
19 years	25	*14.9	10.8	*	*	*	8.0	12.0	21.0	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 54. Iliac crest skinfold in millimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,581	23.9	11.2	7.0	9.5	11.5	15.0	23.5	32.0	36.0	39.0	43.5
18-24 years	347	21.7	11.8	6.0	8.0	9.0	12.0	19.5	30.0	35.5	37.6	43.0
25-34 years	436	26.4	11.5	8.0	11.0	14.0	17.5	26.0	34.5	39.0	41.5	46.0
35-44 years	252	24.7	10.5	8.5	11.0	12.5	16.5	24.5	33.0	35.6	38.0	42.0
45-54 years	270	24.1	10.1	9.0	11.5	13.0	16.5	23.5	30.0	35.0	38.0	43.1
55-64 years	194	22.1	10.0	6.0	9.0	12.0	15.0	20.5	30.0	32.6	35.5	39.0
65-74 years	82	18.5	8.6	*	8.0	10.0	12.0	16.0	24.0	27.0	32.0	*
Cuban												
18-74 years	405	24.7	11.0	8.0	11.0	13.0	16.0	24.0	32.0	36.1	39.0	44.5
18-24 years	55	23.9	14.1	*	9.0	10.0	12.5	18.5	35.0	41.5	45.6	*
25-34 years	64	26.0	13.6	*	8.5	9.5	13.5	24.5	35.5	43.0	44.5	*
35-44 years	52	25.4	8.3	*	14.0	14.5	20.0	26.0	31.0	35.0	37.1	*
45-54 years	114	24.7	9.6	10.0	13.0	15.0	17.5	25.5	31.0	35.0	36.6	39.0
55-64 years	79	25.0	9.2	*	13.0	15.0	19.0	24.0	32.0	36.0	37.0	*
65-74 years	41	*20.5	7.9	*	*	13.5	16.0	20.0	25.0	27.0	*	*
Puerto Rican												
18-74 years	504	22.7	10.7	6.0	8.5	10.5	14.0	23.0	30.5	33.5	36.0	39.0
18-24 years	115	18.5	11.4	6.0	6.0	7.0	9.0	15.0	23.5	31.5	35.5	37.6
25-34 years	107	22.9	11.2	5.5	8.5	11.0	12.5	23.5	31.5	35.0	37.5	43.5
35-44 years	73	25.8	9.3	*	13.5	15.5	22.0	26.0	31.0	33.5	37.0	*
45-54 years	103	24.4	10.2	6.0	9.0	11.5	18.0	26.0	31.5	34.5	35.0	42.0
55-64 years	81	22.0	8.5	*	12.0	13.0	16.5	22.0	28.0	32.0	33.0	*
65-74 years	25	*23.6	7.1	*	*	*	18.5	22.0	29.5	*	*	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 55. Iliac crest skinfold in millimeters for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	63	7.1	2.8	*	4.0	4.0	5.0	6.5	9.0	10.0	11.0	*
1 year	119	7.4	3.3	3.5	4.0	4.5	5.0	6.5	8.5	10.0	11.0	14.0
2 years	118	7.6	2.7	3.5	4.5	5.0	5.5	7.0	9.5	11.0	11.0	12.0
3 years	96	7.7	4.3	*	4.0	4.5	5.0	6.5	9.0	11.0	12.5	*
4 years	96	7.8	4.1	*	4.0	5.0	5.5	7.0	9.0	10.5	12.5	*
5 years	109	8.7	5.9	3.0	4.0	4.5	5.0	7.0	10.0	12.0	16.0	22.5
6 years	118	8.9	6.3	2.5	3.5	4.0	5.0	7.0	10.5	14.5	17.0	25.0
7 years	96	11.3	7.8	*	4.5	5.0	5.5	8.0	14.5	19.0	25.0	*
8 years	107	12.1	8.6	3.5	4.5	5.0	6.0	9.0	14.5	22.5	25.5	30.0
9 years	125	16.3	9.5	4.0	5.0	5.5	8.0	14.5	23.0	28.0	29.5	33.0
10 years	94	17.3	10.2	*	6.0	6.5	9.5	14.0	23.0	30.5	32.6	*
11 years	115	16.7	9.7	5.5	6.0	7.0	10.0	14.0	23.0	28.0	31.0	35.0
12 years	103	19.0	9.5	7.0	8.0	9.5	11.0	17.0	26.0	31.0	32.5	35.5
13 years	89	20.0	8.7	*	9.5	11.0	13.0	19.5	26.5	29.5	32.5	*
14 years	74	21.6	8.9	*	9.0	10.5	15.5	22.0	27.0	30.0	32.0	*
15 years	85	21.3	8.6	*	10.0	11.5	14.5	22.0	29.0	31.5	33.5	*
16 years	99	21.6	10.2	*	9.0	11.0	13.0	19.5	28.5	33.0	35.5	*
17 years	75	21.6	8.6	*	11.0	12.5	15.0	22.5	26.0	28.5	32.0	*
18 years	77	23.0	8.3	*	12.5	14.0	18.0	23.0	30.0	33.0	34.0	*
19 years	75	23.9	10.2	*	11.0	12.5	16.0	23.0	31.0	34.5	37.5	*
Puerto Rican												
6-11 months	15	*	*	*	*	*	*	6.0	*	*	*	*
1 year	31	*7.1	2.9	*	*	*	5.5	6.5	8.0	*	*	*
2 years	26	*8.8	4.4	*	*	*	5.5	7.0	10.5	*	*	*
3 years	40	*6.8	3.4	*	*	4.5	5.0	6.0	8.0	9.0	*	*
4 years	34	*10.5	7.6	*	*	*	5.5	8.5	14.0	*	*	*
5 years	30	*9.7	6.1	*	*	*	5.0	7.5	12.0	*	*	*
6 years	35	*12.9	8.9	*	*	5.5	6.0	9.0	15.5	26.0	*	*
7 years	38	*11.7	9.6	*	*	5.0	5.5	8.0	15.0	21.0	*	*
8 years	30	*15.1	9.5	*	*	*	7.0	12.0	22.0	*	*	*
9 years	34	*13.4	8.4	*	*	*	7.0	12.0	18.5	*	*	*
10 years	36	*16.1	9.5	*	*	5.5	9.0	15.5	24.0	25.0	*	*
11 years	34	*14.4	9.2	*	*	*	5.5	10.5	25.0	*	*	*
12 years	34	*18.1	11.3	*	*	*	10.0	13.0	25.0	*	*	*
13 years	46	21.2	9.9	*	*	9.0	12.0	20.0	30.0	33.0	*	*
14 years	35	*20.7	9.2	*	*	13.0	14.0	20.0	26.0	30.0	*	*
15 years	46	22.1	7.3	*	*	14.5	17.0	22.0	27.5	31.0	*	*
16 years	43	*22.0	9.8	*	*	12.5	15.0	21.0	28.0	28.5	*	*
17 years	38	*17.3	7.6	*	*	10.0	10.5	18.0	22.5	24.0	*	*
18 years	37	*21.0	10.8	*	*	9.5	12.0	19.0	26.5	31.0	*	*
19 years	35	*15.8	9.8	*	*	7.0	9.0	13.0	21.0	24.0	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 56. Iliac crest skinfold in millimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,002	26.5	10.4	10.0	13.0	15.5	19.0	26.0	33.5	37.5	40.1	44.5
18-24 years	428	24.0	10.3	8.5	10.5	13.0	16.5	23.0	31.0	35.0	37.5	43.0
25-34 years	539	25.3	10.4	9.5	12.0	14.0	17.0	25.0	32.6	37.1	39.6	43.1
35-44 years	339	28.4	9.8	12.5	16.0	18.5	21.5	28.0	35.0	38.5	41.0	46.0
45-54 years	360	29.2	10.8	12.0	16.0	17.5	22.0	29.0	36.5	40.5	43.6	49.0
55-64 years	218	29.9	8.9	15.0	19.0	20.5	24.5	30.0	35.0	39.0	41.0	45.1
65-74 years	118	25.8	9.7	11.0	12.0	16.0	19.0	24.5	32.0	37.1	39.0	42.5
Cuban												
18-74 years	502	24.7	8.7	10.0	13.5	16.0	19.0	24.5	30.5	34.0	35.6	39.6
18-24 years	55	20.1	8.7	*	9.0	9.5	13.0	19.5	25.5	31.0	32.6	*
25-34 years	73	20.9	8.3	*	9.0	13.5	14.5	19.5	28.0	29.5	31.5	*
35-44 years	95	25.7	8.3	*	17.0	18.0	20.5	25.0	31.0	35.0	37.5	*
45-54 years	119	27.3	8.1	15.5	18.0	19.5	21.5	27.0	32.0	34.1	37.0	41.0
55-64 years	97	27.6	7.8	*	18.5	20.0	23.0	27.0	33.5	36.0	38.1	*
65-74 years	63	24.8	7.9	*	14.0	15.0	19.0	24.5	30.5	32.5	34.0	*
Puerto Rican												
18-74 years	844	23.9	10.6	8.0	10.0	12.0	15.0	24.0	30.5	34.5	37.0	42.1
18-24 years	190	20.0	11.0	5.5	7.0	9.0	11.0	19.0	26.5	32.5	35.5	42.0
25-34 years	171	22.7	10.3	7.0	10.0	11.5	13.0	22.5	30.0	33.5	35.5	42.0
35-44 years	155	26.4	10.2	11.5	14.0	15.0	19.5	26.0	31.5	36.1	38.5	44.0
45-54 years	177	27.2	8.9	11.5	16.0	18.0	22.0	26.5	33.0	36.0	38.5	42.5
55-64 years	98	25.2	9.0	*	14.0	15.5	18.5	25.5	31.0	34.0	36.0	*
65-74 years	53	24.9	10.8	*	12.0	14.0	15.5	23.0	31.0	36.0	38.0	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 57. Medial calf skinfold in millimeters for males 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	57	14.2	2.7	*	11.0	11.0	12.0	14.0	17.0	17.5	18.0	*
1 year	105	12.5	4.0	7.5	8.5	9.0	10.0	12.0	14.5	15.5	17.0	18.0
2 years	111	10.1	2.5	7.0	7.0	7.5	8.0	10.0	12.0	12.5	13.5	14.5
3 years	130	9.1	2.9	5.5	6.0	6.5	7.0	8.5	10.5	12.0	13.0	15.0
4 years	118	8.5	2.7	5.0	5.5	6.0	6.5	8.0	10.0	10.5	12.0	13.0
5 years	116	8.3	3.7	4.0	4.5	5.0	6.0	7.5	9.5	11.5	12.5	16.0
6 years	110	7.5	3.2	3.0	3.5	4.5	5.5	7.0	8.5	11.0	12.5	14.0
7 years	110	9.2	5.4	4.5	5.0	5.0	6.0	7.5	10.0	13.0	18.0	20.0
8 years	102	10.0	6.5	3.5	4.5	5.0	5.5	8.0	11.0	15.0	19.0	25.0
9 years	106	11.1	7.1	3.5	3.5	5.0	6.5	9.0	15.0	19.0	21.5	25.0
10 years	88	12.8	7.9	*	5.0	5.5	7.0	11.0	17.0	21.0	26.0	*
11 years	113	14.1	8.3	5.0	7.0	7.0	8.0	11.5	18.0	20.0	26.5	29.0
12 years	114	12.4	7.1	4.0	5.0	5.5	7.0	11.0	16.0	19.0	21.0	28.0
13 years	97	12.3	7.9	*	5.5	6.0	7.0	9.5	14.5	20.5	23.0	*
14 years	97	11.3	8.1	*	4.0	4.5	5.5	8.5	13.5	19.5	24.0	*
15 years	69	9.4	7.2	*	4.0	4.5	5.0	7.0	10.5	14.5	19.5	*
16 years	76	10.2	7.6	*	4.0	4.5	5.0	7.5	12.0	16.5	20.0	*
17 years	71	7.7	4.1	*	3.5	4.0	5.0	6.5	10.0	11.0	12.0	*
18 years	63	8.5	5.9	*	3.5	4.0	5.0	6.5	11.0	14.5	15.0	*
19 years	64	10.7	8.0	*	3.5	4.5	5.5	8.0	14.5	17.5	20.5	*
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	13.0	*	*	*	*
1 year	32	*11.7	3.7	*	*	*	9.0	10.5	14.5	*	*	*
2 years	34	*9.8	4.1	*	*	*	7.5	10.0	10.5	*	*	*
3 years	38	*7.7	2.0	*	*	6.0	6.0	8.0	9.0	10.0	*	*
4 years	41	*9.7	3.6	*	*	6.0	7.5	9.0	10.0	13.0	*	*
5 years	22	*	*	*	*	*	5.5	7.0	10.5	*	*	*
6 years	37	*10.3	5.0	*	*	6.0	7.0	8.0	12.0	17.5	*	*
7 years	39	*9.0	4.3	*	*	5.5	5.5	8.0	11.0	12.5	*	*
8 years	42	*9.9	5.0	*	*	5.0	5.5	9.5	12.5	15.5	*	*
9 years	26	*13.6	7.9	*	*	*	7.5	12.0	18.0	*	*	*
10 years	38	*13.9	9.0	*	*	6.0	8.5	10.0	19.0	23.0	*	*
11 years	26	*11.2	6.2	*	*	*	6.5	9.5	16.0	*	*	*
12 years	37	*11.2	9.0	*	*	5.0	6.0	8.5	12.0	17.0	*	*
13 years	39	*11.0	6.4	*	*	5.0	5.5	10.0	13.5	18.0	*	*
14 years	40	*11.0	9.1	*	*	5.0	5.5	7.5	13.0	18.5	*	*
15 years	37	*8.6	6.0	*	*	4.5	5.0	7.0	9.5	11.0	*	*
16 years	43	*9.6	7.3	*	*	4.0	5.0	6.0	14.0	17.0	*	*
17 years	42	*7.9	4.5	*	*	3.5	5.0	6.0	11.0	13.0	*	*
18 years	35	*8.4	5.5	*	*	4.5	5.0	6.0	12.0	14.0	*	*
19 years	25	*7.2	3.9	*	*	*	4.5	5.0	9.0	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 58. Medial calf skinfold in millimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,576	8.9	5.8	3.0	3.5	4.0	5.0	7.5	11.0	13.5	15.0	19.0
18-24 years	347	8.9	6.1	3.0	3.5	4.0	5.0	7.0	11.5	14.0	16.5	20.0
25-34 years	436	9.8	6.9	3.0	4.0	4.5	5.5	8.0	12.0	14.5	16.0	21.0
35-44 years	251	8.3	4.2	3.0	3.5	4.5	5.5	7.5	10.5	12.5	14.0	16.0
45-54 years	269	8.7	5.2	3.0	3.5	4.0	5.0	7.0	11.0	13.0	14.5	19.5
55-64 years	193	7.9	4.2	3.0	3.5	4.0	5.0	7.0	10.0	12.5	14.0	16.5
65-74 years	80	7.0	3.6	*	3.0	3.5	4.0	6.5	9.0	11.0	12.0	*
Cuban												
18-74 years	405	10.5	6.0	3.5	4.5	5.0	6.5	9.5	13.0	16.0	18.0	22.0
18-24 years	55	11.7	7.5	*	4.0	4.5	7.0	10.0	15.5	18.0	21.0	*
25-34 years	64	11.4	6.8	*	5.0	5.0	6.5	9.8	15.5	19.5	20.0	*
35-44 years	52	10.3	6.1	*	5.0	5.0	6.0	9.5	12.0	13.0	16.0	*
45-54 years	114	9.7	4.6	4.0	5.0	5.0	7.0	9.0	12.5	14.0	16.0	18.0
55-64 years	79	9.7	5.1	*	4.0	4.5	6.5	8.5	11.0	14.0	16.0	*
65-74 years	41	*10.4	5.1	*	*	5.0	6.0	9.5	13.0	15.0	*	*
Puerto Rican												
18-74 years	505	8.4	5.0	2.5	3.0	4.0	5.0	7.0	11.0	14.0	15.0	17.5
18-24 years	115	7.9	4.6	3.5	4.0	4.0	5.0	6.0	10.0	12.5	16.0	17.5
25-34 years	107	9.3	5.1	2.5	3.5	4.0	5.0	8.0	13.0	15.0	17.5	18.5
35-44 years	73	8.6	5.5	*	3.0	4.0	5.0	7.0	9.5	12.0	16.0	*
45-54 years	104	7.9	5.6	2.5	3.0	3.5	4.5	7.0	10.0	12.5	14.0	15.5
55-64 years	81	7.3	3.3	*	3.5	4.0	5.0	6.5	10.0	11.0	11.0	*
65-74 years	25	*7.8	4.3	*	*	*	5.0	7.0	9.0	*	*	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 59. Medial calf skinfold in millimeters for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	63	14.3	3.9	*	10.0	11.0	11.5	13.5	16.0	18.0	20.0	*
1 year	119	12.6	2.7	9.0	9.0	9.5	10.5	12.5	14.0	15.5	16.0	17.5
2 years	118	11.2	3.1	7.0	7.5	8.0	9.0	11.0	13.0	15.0	15.5	18.0
3 years	96	10.4	2.7	*	7.0	7.5	8.0	10.0	12.0	13.0	14.5	*
4 years	96	10.4	3.3	*	7.0	7.0	8.0	10.0	12.0	13.5	14.0	*
5 years	109	10.3	4.1	5.5	6.0	7.0	7.5	9.5	11.0	14.0	16.0	17.5
6 years	118	10.4	5.2	4.5	5.5	6.5	7.0	9.0	12.5	14.5	16.5	20.5
7 years	94	12.4	5.4	*	7.5	7.5	8.5	11.0	14.5	18.0	21.0	*
8 years	107	12.8	6.7	5.5	6.5	7.5	8.5	11.5	15.0	17.0	19.5	27.0
9 years	125	14.2	6.3	6.5	7.5	8.0	9.5	13.0	18.0	20.5	23.0	25.0
10 years	94	14.7	6.8	*	7.0	7.5	10.0	13.0	19.0	22.0	24.5	*
11 years	114	15.0	7.1	6.5	7.0	8.0	10.5	13.5	18.0	23.5	25.5	29.5
12 years	103	16.4	7.7	7.5	9.0	9.5	12.0	14.5	19.5	22.0	26.5	31.5
13 years	89	18.1	7.7	*	10.0	11.0	13.0	16.0	21.0	26.0	29.0	*
14 years	75	18.3	8.7	*	8.0	10.5	12.0	17.0	23.0	24.0	27.0	*
15 years	85	18.6	8.2	*	10.0	10.5	12.0	18.0	22.0	26.5	29.0	*
16 years	99	18.4	9.2	*	10.0	11.0	12.0	15.5	22.0	29.5	31.5	*
17 years	75	18.6	5.9	*	11.5	12.5	13.5	18.0	23.0	25.5	27.0	*
18 years	77	19.5	8.1	*	10.0	12.5	14.5	18.0	22.5	26.0	27.0	*
19 years	74	20.0	7.4	*	11.0	13.0	15.0	19.5	24.0	26.5	28.5	*
Puerto Rican												
6-11 months	15	*	*	*	*	*	*	12.0	*	*	*	*
1 year	31	*11.7	2.6	*	*	*	10.0	11.5	12.0	*	*	*
2 years	26	*11.8	2.3	*	*	*	9.0	12.0	13.0	*	*	*
3 years	40	*9.6	2.9	*	*	6.0	7.0	10.5	11.5	13.0	*	*
4 years	34	*10.6	3.6	*	*	*	8.0	10.5	13.0	*	*	*
5 years	30	*10.9	3.5	*	*	*	8.0	10.0	13.0	*	*	*
6 years	35	*12.3	5.0	*	*	7.0	8.0	11.0	16.0	19.0	*	*
7 years	38	*11.3	5.6	*	*	7.0	8.0	9.5	14.0	16.0	*	*
8 years	31	*13.9	5.2	*	*	*	9.5	13.0	18.5	*	*	*
9 years	34	*12.2	5.6	*	*	*	7.5	11.5	15.0	*	*	*
10 years	36	*13.3	5.6	*	*	7.5	8.5	12.5	17.0	19.5	*	*
11 years	34	*12.0	6.4	*	*	*	7.0	11.0	14.0	*	*	*
12 years	34	*15.5	7.5	*	*	*	10.0	14.5	22.0	*	*	*
13 years	46	17.5	7.7	*	*	10.5	12.5	15.0	22.0	25.0	*	*
14 years	35	*15.1	5.0	*	*	11.0	12.0	14.0	17.5	19.0	*	*
15 years	46	19.0	6.9	*	*	12.0	13.0	17.0	24.5	26.0	*	*
16 years	42	*18.1	8.1	*	*	10.5	12.5	17.0	23.0	23.0	*	*
17 years	38	*16.8	6.9	*	*	10.0	13.0	16.0	24.0	25.0	*	*
18 years	37	*17.9	8.2	*	*	11.0	13.0	16.0	21.0	24.0	*	*
19 years	35	*15.3	6.9	*	*	8.0	10.0	13.5	19.0	22.5	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 60. Medial calf skinfold in millimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,995	21.4	9.3	9.0	11.0	12.5	15.0	20.0	26.0	30.5	33.5	39.1
18-24 years	427	21.2	9.0	9.5	11.0	12.5	15.0	20.0	25.0	30.0	32.5	38.0
25-34 years	538	20.7	9.2	8.0	11.0	12.5	14.0	19.5	25.5	30.0	32.5	37.5
35-44 years	338	22.0	9.1	9.5	12.0	13.0	15.0	21.0	26.5	31.0	34.0	39.0
45-54 years	358	22.3	9.6	9.0	11.0	12.5	15.5	21.0	27.5	32.0	36.0	40.0
55-64 years	218	22.8	9.8	9.0	11.0	12.5	16.0	22.5	28.0	31.0	36.0	44.0
65-74 years	116	19.8	9.9	5.0	7.0	10.0	12.0	19.0	24.0	29.5	33.5	40.0
Cuban												
18-74 years	499	22.2	7.7	10.5	12.5	14.5	17.0	22.0	27.0	30.0	31.5	35.0
18-24 years	55	20.0	7.2	*	12.0	12.5	14.0	19.0	23.5	27.5	32.0	*
25-34 years	73	21.1	7.1	*	11.0	12.0	17.5	21.0	26.0	28.0	29.0	*
35-44 years	95	22.4	8.4	*	13.5	15.0	17.0	21.0	27.0	29.5	32.0	*
45-54 years	117	23.2	6.7	12.0	14.0	16.0	18.0	23.5	28.0	31.0	32.0	33.0
55-64 years	96	23.5	8.0	*	14.5	15.5	19.0	22.5	28.5	32.0	35.0	*
65-74 years	63	22.3	8.1	*	12.5	14.5	17.5	21.5	27.0	30.5	31.0	*
Puerto Rican												
18-74 years	840	18.9	8.1	7.5	9.5	11.0	13.0	18.0	23.5	26.5	29.0	33.1
18-24 years	189	17.1	7.3	7.0	8.0	10.0	11.5	16.0	22.5	24.0	27.0	31.0
25-34 years	171	19.0	8.3	8.0	10.0	11.5	13.5	17.0	23.0	26.0	29.0	37.0
35-44 years	155	20.5	8.5	7.5	10.0	11.5	15.0	20.0	24.0	28.5	30.0	33.1
45-54 years	177	19.6	7.1	9.0	11.0	12.0	14.0	18.5	24.0	27.0	29.0	32.0
55-64 years	96	17.9	7.3	*	9.5	10.5	12.5	16.0	22.5	25.0	28.0	*
65-74 years	52	18.9	10.9	*	8.0	9.0	11.0	15.0	24.0	29.0	33.0	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 61. Midupper arm circumference in centimeters for males 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	57	15.2	0.9	*	14.0	14.2	14.5	15.4	15.9	16.1	16.3	*
1 year	104	15.8	1.4	14.0	14.1	14.5	14.7	15.8	16.6	17.0	17.3	17.7
2 years	110	16.4	1.4	14.5	14.9	15.2	15.8	16.4	17.2	17.6	17.8	18.2
3 years	130	16.5	1.5	14.3	14.8	15.2	15.7	16.4	17.2	17.8	18.2	18.8
4 years	118	17.1	1.4	15.4	15.6	15.9	16.1	17.0	17.7	18.1	18.6	19.2
5 years	116	17.6	1.9	15.4	15.7	16.0	16.4	17.4	18.5	19.0	19.6	21.5
6 years	110	18.0	2.0	15.5	16.0	16.3	16.6	17.8	19.1	19.7	20.4	21.8
7 years	110	19.3	2.6	16.3	16.6	16.9	17.5	18.8	20.5	21.9	22.2	25.5
8 years	102	19.9	2.6	16.6	17.4	17.7	18.2	19.3	21.2	22.7	23.9	25.5
9 years	106	21.2	3.1	17.3	18.0	18.4	18.8	20.4	23.0	24.6	25.3	27.2
10 years	88	22.2	3.4	*	18.2	18.6	19.3	21.6	24.3	26.4	27.9	*
11 years	115	24.0	3.8	19.0	19.8	20.1	21.3	23.6	26.0	27.9	28.8	31.0
12 years	114	23.9	3.4	19.2	20.2	20.7	21.6	23.7	25.5	27.2	27.9	30.8
13 years	97	25.5	3.1	*	22.1	22.7	23.3	25.0	27.0	28.8	29.7	*
14 years	97	26.7	3.7	*	22.5	23.3	23.9	26.0	29.2	30.4	31.5	*
15 years	69	27.1	3.2	*	23.6	24.0	25.2	26.9	28.0	29.8	30.5	*
16 years	76	29.2	3.6	*	24.9	25.8	27.0	28.3	31.0	33.6	35.0	*
17 years	71	29.1	3.2	*	25.2	25.8	26.8	28.5	31.4	32.7	33.8	*
18 years	63	29.9	3.3	*	26.0	26.8	27.4	29.7	31.6	33.8	34.2	*
19 years	64	30.7	3.5	*	27.1	27.2	28.5	29.9	32.6	34.7	36.2	*
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	15.4	*	*	*	*
1 year	32	*16.1	1.3	*	*	*	15.0	15.8	17.0	*	*	*
2 years	34	*17.1	2.2	*	*	*	15.9	16.7	17.6	*	*	*
3 years	38	*16.2	1.8	*	*	15.0	15.3	16.2	17.4	17.7	*	*
4 years	41	*17.7	1.9	*	*	16.0	16.2	17.5	18.5	19.1	*	*
5 years	22	*	*	*	*	*	17.0	18.0	19.0	*	*	*
6 years	37	*19.0	2.9	*	*	16.5	17.1	18.2	20.0	21.5	*	*
7 years	39	*19.5	2.4	*	*	17.3	18.1	18.8	20.3	22.0	*	*
8 years	42	*20.3	3.1	*	*	17.7	18.1	19.3	21.8	24.9	*	*
9 years	26	*22.3	3.8	*	*	*	19.0	22.4	25.7	*	*	*
10 years	38	*23.5	4.3	*	*	18.7	19.6	23.0	26.7	28.4	*	*
11 years	27	*22.4	2.9	*	*	*	20.0	21.5	25.3	*	*	*
12 years	37	*24.6	4.8	*	*	19.9	20.7	23.6	26.3	27.9	*	*
13 years	39	*25.2	3.8	*	*	21.8	22.1	24.6	27.4	29.1	*	*
14 years	40	*27.8	4.9	*	*	23.1	24.0	27.2	30.0	32.2	*	*
15 years	37	*27.6	4.3	*	*	23.0	24.0	27.2	29.7	32.0	*	*
16 years	44	*30.1	4.0	*	*	26.2	27.0	30.0	31.7	34.8	*	*
17 years	42	*29.6	3.9	*	*	26.0	26.5	29.2	31.4	33.8	*	*
18 years	35	*30.6	3.9	*	*	26.6	27.3	30.2	31.8	35.5	*	*
19 years	25	*29.3	3.3	*	*	*	26.2	30.5	31.3	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 62. Midupper arm circumference in centimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,580	32.1	3.4	26.8	28.0	28.6	29.9	32.1	34.1	35.4	36.2	38.0
18-24 years	347	30.9	3.4	26.2	27.0	27.7	28.4	30.7	33.0	34.3	35.1	36.5
25-34 years	436	32.5	3.5	27.6	29.0	29.4	30.4	32.2	34.2	35.7	36.5	38.9
35-44 years	251	32.6	3.0	27.8	28.3	29.5	31.0	32.5	34.4	35.5	36.3	37.3
45-54 years	270	32.8	2.9	28.0	29.2	30.0	31.4	32.8	34.5	35.6	36.5	38.0
55-64 years	194	32.3	3.5	26.2	28.1	29.2	30.1	32.2	34.6	35.4	36.2	38.0
65-74 years	82	31.8	3.4	*	27.5	28.0	29.2	31.4	34.2	35.4	36.1	*
Cuban												
18-74 years	403	32.1	3.3	27.2	28.1	28.8	29.8	32.1	34.1	35.2	36.1	37.8
18-24 years	55	31.6	3.4	*	28.0	28.6	29.0	31.8	33.6	34.8	35.4	*
25-34 years	63	33.0	3.8	*	27.5	29.3	30.5	33.0	34.8	37.0	37.5	*
35-44 years	52	32.6	3.0	*	28.7	29.1	30.8	32.6	34.1	34.6	36.8	*
45-54 years	113	32.2	3.0	27.3	28.6	28.9	30.2	32.2	34.0	35.4	35.8	37.2
55-64 years	79	31.5	3.1	*	28.2	28.4	29.4	31.5	33.9	34.8	35.3	*
65-74 years	41	*30.6	2.6	*	*	28.0	28.8	31.0	32.2	33.1	*	*
Puerto Rican												
18-74 years	504	31.4	3.7	26.1	26.7	27.7	29.1	31.4	33.8	35.0	35.7	36.7
18-24 years	115	30.2	4.1	23.6	26.1	26.6	27.3	30.2	33.2	34.7	35.2	36.1
25-34 years	107	31.0	3.5	26.0	26.5	27.4	28.2	30.5	33.0	34.5	35.2	36.3
35-44 years	73	33.0	3.6	*	28.6	29.3	30.9	32.9	34.7	36.2	36.6	*
45-54 years	103	32.1	3.5	26.5	27.5	28.2	29.7	32.1	34.1	35.7	37.1	37.8
55-64 years	81	31.2	2.8	*	28.0	28.2	29.5	31.2	33.2	34.8	35.0	*
65-74 years	25	*31.7	2.7	*	*	*	29.5	31.0	34.1	*	*	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 63. Midupper arm circumference in centimeters for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	63	14.8	1.1	*	13.5	13.7	13.9	14.7	15.5	16.1	16.5	*
1 year	120	15.4	1.3	13.5	13.8	14.1	14.6	15.3	16.1	16.5	17.0	17.5
2 years	119	16.0	1.3	13.8	14.5	14.7	15.1	15.9	16.7	17.2	17.9	18.5
3 years	95	16.6	1.4	*	15.0	15.2	15.5	16.4	17.4	18.0	18.1	*
4 years	96	17.4	1.8	*	15.7	15.9	16.3	17.0	18.0	18.9	19.5	*
5 years	109	17.8	2.1	15.3	15.9	16.2	16.4	17.4	18.7	19.5	20.0	22.2
6 years	117	18.4	2.3	15.8	16.3	16.5	16.8	17.7	19.5	20.9	21.6	23.5
7 years	96	19.2	2.6	*	16.5	16.9	17.4	18.5	20.8	22.0	22.8	*
8 years	107	19.9	2.6	16.4	16.8	17.7	18.1	19.5	21.3	22.6	23.1	24.5
9 years	125	21.6	3.1	17.1	17.6	18.0	19.3	21.3	23.7	24.8	25.8	26.4
10 years	94	22.4	3.3	*	19.1	19.4	20.5	21.9	24.8	26.0	26.2	*
11 years	114	22.9	3.5	18.5	19.3	19.5	20.2	22.4	25.3	26.7	27.3	28.4
12 years	103	24.4	3.4	19.7	20.4	20.7	22.0	24.1	26.6	27.7	28.9	31.6
13 years	89	26.0	3.6	*	22.0	22.5	23.1	25.2	28.0	29.9	32.2	*
14 years	75	26.2	3.6	*	22.0	22.8	24.1	26.0	27.9	30.1	31.4	*
15 years	85	26.4	4.1	*	22.4	23.2	23.6	25.8	28.9	30.8	32.1	*
16 years	99	27.0	4.2	*	22.7	23.4	24.3	26.2	28.1	31.1	33.2	*
17 years	75	26.5	3.1	*	23.4	23.9	25.0	26.2	28.2	30.0	30.8	*
18 years	77	27.2	3.4	*	23.1	24.0	25.1	27.1	28.8	30.7	31.4	*
19 years	75	27.7	3.9	*	23.7	24.3	24.8	27.4	29.0	30.8	31.7	*
Puerto Rican												
6-11 months	15	*	*	*	*	*	*	15.0	*	*	*	*
1 year	31	*15.4	1.2	*	*	*	14.4	15.3	16.3	*	*	*
2 years	27	*16.8	2.3	*	*	*	15.9	16.4	17.8	*	*	*
3 years	40	*16.7	1.2	*	*	15.3	16.0	16.9	17.4	17.8	*	*
4 years	34	*17.6	1.7	*	*	*	16.6	17.3	18.5	*	*	*
5 years	30	*18.3	1.5	*	*	*	16.8	18.5	19.5	*	*	*
6 years	35	*19.4	3.2	*	*	16.7	17.1	19.1	21.1	23.5	*	*
7 years	39	*19.7	5.8	*	*	16.2	17.2	18.0	21.0	22.0	*	*
8 years	30	*21.4	3.5	*	*	*	18.1	21.9	24.5	*	*	*
9 years	34	*21.1	3.2	*	*	*	19.2	20.4	22.6	*	*	*
10 years	36	*21.9	3.0	*	*	19.2	19.5	21.1	24.8	25.2	*	*
11 years	34	*22.5	3.7	*	*	*	20.1	21.7	26.6	*	*	*
12 years	34	*24.8	5.0	*	*	*	21.3	23.1	26.6	*	*	*
13 years	46	26.1	4.3	*	*	22.0	23.5	26.2	27.6	30.3	*	*
14 years	35	*25.9	2.6	*	*	23.5	24.2	25.0	27.1	27.8	*	*
15 years	46	26.7	3.3	*	*	23.5	24.6	26.2	28.6	29.7	*	*
16 years	43	*27.5	4.6	*	*	23.9	24.8	27.4	29.1	30.5	*	*
17 years	38	*27.0	4.0	*	*	23.5	24.2	25.8	30.0	32.0	*	*
18 years	37	*27.3	4.5	*	*	22.8	23.8	26.6	29.6	30.8	*	*
19 years	35	*27.1	4.4	*	*	22.9	23.3	26.2	28.3	31.2	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 64. Midupper arm circumference in centimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,002	30.7	4.7	24.2	25.4	26.3	27.4	30.0	33.4	35.3	36.9	39.1
18-24 years	428	28.4	4.1	23.0	24.0	24.5	25.7	28.0	30.5	32.2	33.5	35.8
25-34 years	539	30.1	4.4	24.1	25.3	26.2	27.1	29.5	32.6	34.4	35.5	38.2
35-44 years	339	31.6	4.5	26.0	26.7	27.3	28.0	30.7	34.6	36.0	37.5	39.9
45-54 years	360	32.7	4.8	26.5	27.2	28.1	29.1	32.3	35.6	37.8	39.1	41.5
55-64 years	218	33.0	4.6	27.0	27.8	28.8	29.7	32.3	35.7	37.0	39.0	41.4
65-74 years	118	31.8	4.4	24.1	27.2	27.5	29.2	31.3	34.4	36.1	37.6	40.1
Cuban												
18-74 years	502	30.1	4.2	23.6	25.1	26.3	27.1	29.8	33.1	34.4	35.4	37.2
18-24 years	55	26.9	4.1	*	21.7	22.2	24.1	27.0	29.7	30.5	31.1	*
25-34 years	73	28.6	3.8	*	24.0	24.5	26.0	27.8	31.2	33.1	34.2	*
35-44 years	95	30.7	4.1	*	26.4	26.9	27.7	30.0	33.3	34.4	36.1	*
45-54 years	119	31.2	3.8	25.7	26.5	27.3	28.5	31.0	33.8	34.7	35.5	37.3
55-64 years	97	31.4	3.8	*	26.9	27.1	28.5	31.2	33.7	34.7	35.2	*
65-74 years	63	31.2	3.7	*	27.1	28.0	28.8	30.6	33.7	35.4	36.9	*
Puerto Rican												
18-74 years	844	30.3	5.3	22.9	24.3	25.1	26.4	29.5	33.3	35.2	37.1	40.9
18-24 years	190	27.9	4.8	22.5	23.0	23.7	24.5	26.5	30.0	33.8	34.8	37.6
25-34 years	170	29.0	4.5	22.9	23.8	24.7	25.8	28.3	31.1	33.4	35.1	37.8
35-44 years	156	31.9	5.7	24.6	25.8	26.8	27.8	31.0	34.4	37.3	39.4	42.6
45-54 years	177	32.2	4.6	25.8	27.3	28.2	29.2	31.1	34.5	36.5	38.6	40.3
55-64 years	98	32.1	5.0	*	26.1	27.4	28.5	32.3	34.8	36.4	39.0	*
65-74 years	53	33.0	5.6	*	24.7	28.2	29.9	32.6	36.2	40.0	40.5	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 65. Maximal calf circumference in centimeters for males 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	57	18.6	1.4	*	16.5	17.0	17.5	18.8	19.5	19.9	20.2	*
1 year	105	19.9	1.8	17.7	18.0	18.2	18.8	19.8	20.9	21.5	21.6	22.7
2 years	111	20.8	1.6	17.9	19.0	19.4	19.9	20.9	21.7	22.4	22.5	23.1
3 years	130	21.5	1.8	18.9	19.6	20.1	20.5	21.3	22.2	22.9	23.8	24.4
4 years	118	22.1	1.7	20.0	20.5	20.7	21.1	22.0	22.7	23.2	23.8	24.6
5 years	116	23.3	2.8	20.2	20.6	21.0	21.8	22.8	24.0	24.6	25.7	28.4
6 years	110	24.0	2.6	21.1	21.4	21.9	22.3	24.0	25.3	26.1	26.8	27.8
7 years	110	25.5	2.4	21.9	22.9	23.2	24.0	25.2	27.1	28.0	28.5	29.8
8 years	102	26.5	3.1	23.2	23.6	24.3	25.2	26.1	28.0	28.9	30.0	32.0
9 years	106	27.6	3.3	23.2	24.1	24.8	25.5	27.0	29.6	31.1	31.9	33.5
10 years	88	29.2	3.4	*	25.1	25.7	26.5	29.0	31.5	33.4	33.9	*
11 years	115	31.2	3.6	26.7	27.5	28.2	28.6	30.3	33.0	35.0	36.4	38.3
12 years	114	32.0	4.0	26.9	27.9	28.2	29.5	31.8	33.5	34.5	35.8	40.2
13 years	97	33.1	3.2	*	29.8	30.3	31.1	32.9	35.4	36.6	37.0	*
14 years	97	34.7	3.6	*	30.8	31.1	32.3	34.2	36.8	38.4	39.1	*
15 years	69	34.2	2.8	*	31.8	32.1	32.5	33.7	35.8	36.9	38.3	*
16 years	76	35.5	3.2	*	31.1	32.0	33.7	35.0	38.1	38.9	39.2	*
17 years	71	34.8	2.7	*	31.3	32.1	33.0	34.4	36.1	37.7	39.1	*
18 years	63	35.9	3.6	*	32.1	33.0	33.3	35.2	38.1	39.1	41.0	*
19 years	64	36.4	3.8	*	32.2	32.9	33.6	35.9	37.6	41.3	42.2	*
Puerto Rican												
6-11 months	17	*	*	*	*	*	*	19.0	*	*	*	*
1 year	32	*20.3	1.7	*	*	*	19.0	19.7	21.4	*	*	*
2 years	34	*21.5	1.6	*	*	*	20.6	21.4	22.2	*	*	*
3 years	38	*21.1	1.9	*	*	19.4	20.0	21.1	22.5	23.0	*	*
4 years	41	*23.2	2.5	*	*	20.5	21.5	23.2	24.5	25.2	*	*
5 years	22	*	*	*	*	*	22.3	23.3	25.0	*	*	*
6 years	37	*24.9	3.1	*	*	22.4	23.0	24.0	25.8	27.8	*	*
7 years	39	*26.4	3.1	*	*	23.8	24.3	25.8	27.8	28.9	*	*
8 years	42	*26.9	3.0	*	*	23.8	24.5	26.7	28.6	31.0	*	*
9 years	26	*29.4	3.5	*	*	*	26.0	29.3	32.1	*	*	*
10 years	38	*30.5	4.4	*	*	26.2	27.3	30.1	33.9	35.6	*	*
11 years	26	*30.5	3.4	*	*	*	26.8	30.6	33.3	*	*	*
12 years	37	*32.6	4.3	*	*	28.5	30.0	33.0	35.7	36.6	*	*
13 years	39	*33.7	3.4	*	*	30.8	31.7	32.9	35.1	37.1	*	*
14 years	40	*35.0	3.9	*	*	31.8	32.5	34.2	36.4	38.3	*	*
15 years	37	*35.1	4.6	*	*	31.2	31.5	34.5	38.6	39.2	*	*
16 years	44	*37.3	3.5	*	*	33.6	35.3	36.8	39.9	40.6	*	*
17 years	42	*36.9	3.7	*	*	33.0	34.1	36.1	40.1	41.1	*	*
18 years	35	*37.3	3.5	*	*	33.7	35.4	37.1	38.3	41.9	*	*
19 years	25	*36.4	3.3	*	*	*	35.0	36.7	38.9	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 66. Maximal calf circumference in centimeters for males 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	1,577	36.4	3.3	31.5	32.5	33.1	34.2	36.2	38.4	39.5	40.4	41.8
18-24 years	346	36.1	3.3	31.2	32.4	33.0	33.8	35.8	37.7	39.1	40.5	42.2
25-34 years	437	37.1	3.5	32.1	33.1	33.7	35.0	36.8	39.0	40.0	41.1	43.7
35-44 years	251	36.6	3.0	32.0	32.7	33.6	34.6	36.6	38.7	39.6	40.2	41.5
45-54 years	269	36.3	2.8	31.9	32.8	33.5	34.3	36.3	38.1	39.0	39.4	41.0
55-64 years	193	35.7	3.1	30.9	31.8	32.5	33.6	35.8	38.0	39.1	39.8	40.6
65-74 years	81	34.4	3.1	*	30.6	31.1	32.1	33.8	36.7	37.9	39.2	*
Cuban												
18-74 years	405	36.5	3.5	31.0	32.4	33.2	34.4	36.5	38.6	39.8	40.6	42.2
18-24 years	55	37.2	3.9	*	33.3	34.2	35.0	37.0	39.0	41.2	41.8	*
25-34 years	64	37.5	3.9	*	32.3	33.4	36.0	37.5	39.6	40.8	42.2	*
35-44 years	52	36.6	2.8	*	33.1	33.5	34.8	36.8	39.0	39.4	39.9	*
45-54 years	114	36.3	3.3	31.0	31.7	33.0	34.4	36.1	38.5	40.0	40.1	41.1
55-64 years	79	35.4	3.2	*	31.7	32.6	33.2	35.6	37.7	38.7	39.1	*
65-74 years	41	*35.4	2.8	*	*	32.5	33.3	34.7	37.4	38.2	*	*
Puerto Rican												
18-74 years	505	37.3	3.3	32.1	33.3	34.1	35.3	37.2	39.3	40.2	41.1	42.6
18-24 years	115	37.2	3.3	32.1	32.9	33.6	35.2	36.9	39.6	40.3	41.1	42.1
25-34 years	107	37.8	3.3	32.1	34.3	34.8	35.7	37.8	39.4	40.9	42.0	43.8
35-44 years	73	37.6	3.2	*	33.7	34.6	35.6	37.5	39.9	41.0	41.2	*
45-54 years	104	37.4	3.3	32.3	33.5	34.0	35.5	37.1	39.2	40.2	41.6	42.8
55-64 years	81	35.8	2.9	*	32.5	33.2	34.0	36.1	37.8	38.4	38.7	*
65-74 years	25	*35.5	2.5	*	*	*	33.4	35.2	36.9	*	*	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 67. Maxminal calf circumference in centimeters for females 6 months-19 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
6-11 months	63	18.3	1.2	*	16.8	17.0	17.4	18.3	19.1	19.8	20.0	*
1 year	119	19.4	1.6	17.5	17.7	17.9	18.3	19.2	20.4	21.1	21.4	21.7
2 years	118	20.5	2.7	18.2	18.5	19.2	19.5	20.2	21.1	21.7	22.4	23.2
3 years	96	21.4	1.6	*	19.3	19.7	20.3	21.4	22.5	23.0	23.1	*
4 years	96	22.4	1.7	*	20.4	20.7	21.1	22.0	23.4	24.2	24.7	*
5 years	108	23.3	2.0	20.4	21.4	21.6	22.0	23.0	24.0	25.0	26.4	27.7
6 years	118	24.2	3.1	21.2	21.5	21.7	22.3	23.4	25.5	26.2	28.2	29.2
7 years	95	25.1	3.7	*	22.5	22.7	23.3	24.9	27.1	28.4	29.4	*
8 years	107	26.4	3.2	22.9	23.4	23.5	24.2	26.0	28.1	29.1	30.2	31.5
9 years	125	28.3	3.2	23.5	24.6	24.7	26.1	28.2	30.2	31.4	32.2	34.5
10 years	94	29.9	3.4	*	26.1	26.5	27.6	29.6	32.1	33.1	35.0	*
11 years	115	30.2	3.6	25.5	26.3	26.7	27.8	29.8	32.3	34.1	35.1	36.0
12 years	103	32.5	3.5	27.4	28.7	29.1	29.9	32.2	34.5	35.3	36.8	38.7
13 years	89	33.7	3.0	*	30.4	30.6	31.5	33.3	35.0	35.9	38.3	*
14 years	75	34.4	3.0	*	30.4	31.4	32.4	34.4	35.8	37.6	37.9	*
15 years	85	34.7	3.3	*	30.8	31.2	32.3	34.0	37.3	38.5	39.2	*
16 years	99	34.7	4.0	*	30.0	31.0	32.1	34.2	36.3	38.7	40.2	*
17 years	75	34.1	3.4	*	31.3	31.8	32.2	33.5	36.5	37.6	38.3	*
18 years	77	34.8	3.1	*	31.2	31.6	33.2	34.5	36.4	37.6	39.6	*
19 years	75	35.0	3.4	*	31.7	32.3	33.0	34.8	36.6	37.0	38.4	*
Puerto Rican												
6-11 months	15	*	*	*	*	*	*	18.7	*	*	*	*
1 year	31	*19.7	1.4	*	*	*	18.9	19.8	20.8	*	*	*
2 years	26	*20.5	1.9	*	*	*	19.4	20.3	22.0	*	*	*
3 years	40	*21.5	1.6	*	*	19.7	20.7	21.5	22.6	23.0	*	*
4 years	34	*23.2	2.0	*	*	*	21.8	22.4	24.4	*	*	*
5 years	30	*24.6	1.4	*	*	*	23.8	24.9	25.5	*	*	*
6 years	35	*25.4	3.3	*	*	22.9	23.5	25.6	27.5	29.0	*	*
7 years	38	*26.5	3.2	*	*	23.4	24.2	25.5	28.0	29.3	*	*
8 years	31	*28.5	3.1	*	*	*	25.5	28.1	31.2	*	*	*
9 years	34	*28.5	3.7	*	*	*	26.1	27.6	30.3	*	*	*
10 years	36	*30.2	3.2	*	*	26.9	27.6	30.1	32.1	34.4	*	*
11 years	34	*31.1	4.1	*	*	*	28.5	31.3	34.4	*	*	*
12 years	34	*33.4	4.7	*	*	*	29.5	32.4	34.9	*	*	*
13 years	46	35.0	3.9	*	*	31.3	32.6	34.1	37.0	38.1	*	*
14 years	35	*34.9	2.3	*	*	32.6	33.0	34.8	36.5	37.5	*	*
15 years	46	35.6	3.0	*	*	32.8	33.7	34.7	38.0	38.8	*	*
16 years	42	*35.9	3.1	*	*	32.8	34.1	35.7	37.4	39.2	*	*
17 years	38	*35.6	3.6	*	*	31.6	33.5	35.5	38.1	39.8	*	*
18 years	37	*35.2	4.0	*	*	30.8	32.2	34.8	37.6	38.3	*	*
19 years	35	*35.2	3.8	*	*	32.0	32.7	34.5	36.2	38.5	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 68. Maximal calf circumference in centimeters for females 18-74 years of age--number examined, mean, standard deviation, and selected percentiles, by specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Mexican American												
18-74 years	2,000	35.2	3.7	29.9	31.1	31.8	32.8	34.9	37.1	38.8	40.1	41.9
18-24 years	428	35.0	3.5	29.8	31.2	31.8	32.7	34.9	36.9	38.3	39.5	41.6
25-34 years	538	35.0	3.6	30.0	31.0	31.7	32.6	34.7	36.9	38.7	40.0	41.8
35-44 years	339	35.5	3.7	30.9	31.4	32.0	33.1	35.1	37.3	38.7	41.0	42.6
45-54 years	360	35.7	3.6	30.1	31.5	32.2	33.1	35.2	38.0	39.8	40.8	41.7
55-64 years	218	35.2	3.7	29.5	31.0	32.0	33.0	34.6	37.1	39.0	40.0	41.5
65-74 years	117	34.2	3.9	28.5	29.5	30.2	31.2	34.3	36.8	37.9	38.9	41.8
Cuban												
18-74 years	500	35.1	3.8	29.6	30.8	31.7	32.6	34.9	37.2	38.7	39.8	41.3
18-24 years	55	34.7	3.6	*	30.2	31.2	32.3	34.1	36.2	37.7	39.5	*
25-34 years	73	34.4	3.9	*	29.6	30.7	32.2	34.4	36.9	37.5	39.5	*
35-44 years	95	35.7	3.7	*	31.4	32.0	33.0	35.3	38.1	39.6	40.9	*
45-54 years	118	35.5	3.5	29.6	31.7	32.0	33.5	35.4	37.7	39.1	39.9	40.8
55-64 years	96	35.2	3.9	*	31.1	32.1	33.0	34.8	37.5	38.8	40.0	*
65-74 years	63	34.4	3.9	*	29.9	31.2	32.0	34.4	36.7	37.7	39.3	*
Puerto Rican												
18-74 years	845	36.2	4.3	30.6	31.5	32.2	33.4	35.5	38.2	40.1	41.5	43.6
18-24 years	190	35.8	4.2	30.6	31.6	32.2	33.1	34.8	37.6	39.5	41.2	43.8
25-34 years	171	36.1	4.1	30.6	31.3	32.2	33.3	35.6	38.1	40.2	41.1	43.1
35-44 years	155	36.8	5.0	30.5	31.5	32.8	34.0	36.3	38.8	41.4	42.5	45.1
45-54 years	177	36.5	3.4	31.5	32.5	33.0	34.5	36.1	38.6	39.6	41.5	42.1
55-64 years	98	35.7	4.1	*	31.1	32.1	32.6	34.6	38.0	40.3	41.5	*
65-74 years	54	35.0	4.0	*	30.2	30.6	31.8	34.8	37.7	38.7	39.2	*

NOTE: See appendix III for the definition of Hispanic origin.

Table 69. Head circumference in centimeters for persons 6 months-7 years of age--number examined, mean, standard deviation, and selected percentiles, by sex, specified Hispanic origin, and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Sex, Hispanic origin, and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
Mexican American :												
6-11 months	57	45.2	2.0	*	43.5	43.7	44.1	45.6	46.3	46.6	46.9	*
1 year	101	46.9	2.4	44.5	45.1	45.2	46.0	47.2	48.4	49.1	49.3	50.1
2 years	110	48.6	1.4	46.2	46.8	47.1	47.6	48.7	49.4	50.1	50.4	51.5
3 years	128	49.8	1.9	47.3	48.1	48.2	48.6	49.5	50.8	51.1	51.5	52.8
4 years	118	49.8	2.8	47.7	48.0	48.3	49.0	50.0	50.9	51.5	51.8	52.4
5 years	111	50.7	1.7	47.7	48.8	49.0	49.7	50.8	51.8	52.5	52.8	53.2
6 years	95	51.0	1.5	*	49.2	49.5	50.1	51.0	51.9	52.5	52.8	*
7 years	88	51.3	1.8	*	49.0	49.7	50.2	51.2	52.1	53.2	53.7	*
Puerto Rican :												
6-11 months	17	*	*	*	*	*	*	45.6	*	*	*	*
1 year	31	*47.7	1.3	*	*	*	47.0	47.9	48.4	*	*	*
2 years	34	*49.4	1.7	*	*	*	48.2	49.7	50.7	*	*	*
3 years	38	*49.5	1.6	*	*	48.1	48.5	49.6	50.3	51.2	*	*
4 years	40	*50.6	1.5	*	*	49.0	49.8	51.0	51.8	52.3	*	*
5 years	22	*	*	*	*	*	50.1	51.1	52.2	*	*	*
6 years	36	*51.1	1.6	*	*	48.8	50.5	51.2	52.3	52.8	*	*
7 years	33	*51.8	1.7	*	*	*	50.3	51.8	52.7	*	*	*
Female												
Mexican American :												
6-11 months	61	43.8	2.1	*	42.0	42.2	42.4	43.8	44.6	45.5	45.9	*
1 year	120	45.9	2.5	44.0	44.5	44.7	45.1	46.1	47.0	47.6	48.2	48.7
2 years	118	47.5	1.5	45.2	45.6	45.9	46.4	47.4	48.5	49.1	49.3	49.6
3 years	96	48.4	1.6	*	46.2	46.6	47.4	48.6	49.5	50.1	50.2	*
4 years	94	49.1	1.8	*	47.3	47.6	48.1	49.1	50.0	50.4	51.1	*
5 years	103	49.6	1.7	47.4	47.8	48.0	48.8	49.5	50.4	51.0	51.3	51.5
6 years	107	50.2	1.9	47.8	48.1	48.6	49.0	50.2	51.1	51.8	52.4	53.1
7 years	80	50.3	1.5	*	48.6	48.9	49.6	50.2	51.1	51.8	52.1	*
Puerto Rican :												
6-11 months	18	*	*	*	*	*	*	44.8	*	*	*	*
1 year	31	*46.3	1.4	*	*	*	45.4	46.4	47.5	*	*	*
2 years	26	*47.8	2.1	*	*	*	46.6	47.5	48.2	*	*	*
3 years	40	*48.5	1.4	*	*	47.1	47.5	48.6	49.5	49.7	*	*
4 years	33	*49.1	1.5	*	*	*	48.2	49.1	49.7	*	*	*
5 years	27	*50.0	1.3	*	*	*	49.0	49.6	50.9	*	*	*
6 years	33	*50.6	1.8	*	*	*	49.5	50.5	51.5	*	*	*
7 years	33	*51.3	1.9	*	*	*	50.1	51.0	51.9	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 70. Chest circumference (erect) in centimeters for persons 2-7 years of age--number examined, mean, standard deviation, and selected percentiles, by sex, specified Hispanic origin, and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Sex, Hispanic origin, and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
Mexican American :												
2 years	110	52.4	2.6	48.4	49.2	50.0	50.4	52.4	53.8	54.9	55.6	56.5
3 years	128	54.1	3.1	49.1	51.1	51.6	52.2	53.8	55.7	56.5	57.8	59.2
4 years	118	55.9	2.4	52.3	53.0	53.2	54.3	56.0	57.6	58.5	59.5	60.2
5 years	114	57.9	4.6	52.0	53.4	54.6	55.3	57.5	59.7	61.4	62.8	63.8
6 years	95	60.0	4.0	*	55.6	56.1	57.1	59.7	62.1	63.3	64.7	*
7 years	89	62.8	6.0	*	56.9	57.2	58.6	61.2	66.2	69.1	70.0	*
Puerto Rican :												
2 years	34	*52.6	3.0	*	*	*	50.8	52.4	53.9	*	*	*
3 years	38	*53.2	2.6	*	*	50.5	52.0	53.0	54.5	56.5	*	*
4 years	40	*57.0	5.1	*	*	52.1	53.5	56.0	59.1	62.1	*	*
5 years	21	*	*	*	*	*	57.1	58.0	59.5	*	*	*
6 years	36	*60.4	8.2	*	*	56.3	57.2	59.5	61.2	64.7	*	*
7 years	33	*62.1	4.9	*	*	*	59.3	61.1	64.6	*	*	*
Female												
Mexican American :												
2 years	116	50.9	2.7	47.0	48.2	48.6	49.4	50.4	52.1	53.2	54.4	55.4
3 years	96	53.1	3.5	*	48.7	49.6	51.6	52.7	54.5	56.5	56.9	*
4 years	93	54.9	3.3	*	51.2	51.5	52.4	54.2	57.0	58.1	58.7	*
5 years	102	57.0	4.9	51.6	52.4	52.8	53.8	56.2	58.1	60.8	62.4	66.6
6 years	108	58.7	4.6	53.0	54.0	55.1	55.6	57.5	60.5	62.2	66.0	69.0
7 years	79	61.4	6.2	*	55.0	55.2	57.0	60.2	63.4	67.0	70.1	*
Puerto Rican :												
2 years	26	*50.4	2.8	*	*	*	48.4	49.6	52.2	*	*	*
3 years	40	*51.6	2.8	*	*	49.1	50.4	51.4	52.6	53.8	*	*
4 years	33	*55.6	5.3	*	*	*	52.8	54.4	56.0	*	*	*
5 years	27	*57.8	2.6	*	*	*	55.4	57.5	59.9	*	*	*
6 years	33	*61.8	6.3	*	*	*	56.0	61.3	66.1	*	*	*
7 years	31	*61.7	6.1	*	*	*	57.1	59.8	64.6	*	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 71. Chest circumference (supine) in centimeters for persons 6 months-3 years of age--number examined, mean, standard deviation, and selected percentiles, by sex, specified Hispanic origin, and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Sex, Hispanic origin, and age	Number of examined persons	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
Mexican American :												
6-11 months	57	46.7	2.1	*	44.0	44.5	45.1	47.0	48.0	48.7	49.1	*
1 year	103	50.1	2.8	46.1	47.0	47.5	48.2	49.9	51.8	53.0	53.4	54.1
2 years	110	52.8	2.5	49.0	49.3	50.0	51.0	52.6	54.6	55.5	56.0	56.9
3 years	119	54.7	3.2	50.3	51.4	51.9	52.6	54.5	56.3	57.3	57.7	60.5
Puerto Rican :												
6-11 months	17	*	*	*	*	*	*	46.3	*	*	*	*
1 year	31	*49.3	3.0	*	*	*	47.6	49.3	52.0	*	*	*
2 years	33	*52.8	3.3	*	*	*	50.7	52.5	54.3	*	*	*
3 years	38	*53.0	2.4	*	*	50.8	51.1	53.2	54.5	55.5	*	*
Female												
Mexican American :												
6-11 months	63	45.6	2.2	*	43.0	43.3	44.0	45.6	47.0	48.0	48.4	*
1 year	118	48.6	2.5	45.0	45.4	45.8	46.7	48.3	50.2	51.9	52.4	53.4
2 years	117	51.2	2.8	47.7	48.3	48.7	49.6	50.8	52.2	53.6	54.4	56.7
3 years	93	53.6	3.4	*	49.1	49.6	51.8	53.6	55.4	57.3	58.0	*
Puerto Rican :												
6-11 months	15	*	*	*	*	*	*	46.4	*	*	*	*
1 year	31	*48.2	3.0	*	*	*	47.0	48.3	49.4	*	*	*
2 years	26	*50.0	2.8	*	*	*	48.5	50.1	52.2	*	*	*
3 years	36	*51.9	2.6	*	*	49.3	50.8	52.0	52.8	53.4	*	*

NOTES: Cuban data not presented because of insufficient sample size. See appendix III for the definition of Hispanic origin.

Table 72. Handedness for males 6 months-74 years of age--number examined and percent distribution by hand preference, according to specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Examined persons	Hand preference				
		Total	Right	Left	Both	Not sure
Mexican American	Number	Percent distribution				
6-11 months	56	100.0	29.2	-	6.3	64.5
1 year	104	100.0	37.8	10.1	2.8	49.3
2 years	104	100.0	65.4	7.7	3.3	23.5
3 years	130	100.0	85.2	3.9	0.7	10.2
4 years	115	100.0	77.9	18.9	-	3.2
5 years	109	100.0	84.3	14.6	-	1.1
6-11 years	625	100.0	87.0	12.0	1.0	-
12-17 years	516	100.0	90.9	8.3	0.7	0.2
18-24 years	344	100.0	91.4	7.6	1.0	-
25-34 years	437	100.0	92.4	6.8	0.9	-
35-44 years	250	100.0	94.6	4.0	1.1	0.3
45-54 years	268	100.0	95.7	3.3	0.6	0.4
55-64 years	194	100.0	96.0	3.7	0.3	-
65-74 years	83	100.0	97.0	1.6	1.4	-
Cuban						
6-11 months	4	*	*	*	*	*
1 year	15	*	*	*	*	*
2 years	7	*	*	*	*	*
3 years	10	*	*	*	*	*
4 years	13	*	*	*	*	*
5 years	1	*	*	*	*	*
6-11 years	64	100.0	83.2	16.8	-	-
12-17 years	86	100.0	86.1	12.5	1.4	-
18-24 years	55	100.0	91.5	4.6	3.9	-
25-34 years	64	100.0	87.0	8.6	2.6	1.7
35-44 years	52	100.0	89.3	9.2	1.5	-
45-54 years	114	100.0	95.8	2.0	1.5	0.7
55-64 years	78	100.0	98.8	-	1.2	-
65-74 years	41	*100.0	*100.0	-	-	-
Puerto Rican						
6-11 months	17	*	*	*	*	*
1 year	34	*100.0	*45.6	*2.8	*10.8	*40.8
2 years	35	*100.0	*51.7	*12.7	*7.2	*28.3
3 years	38	*100.0	*65.1	*8.9	*2.0	*24.0
4 years	42	*100.0	*73.1	*21.1	*2.0	*3.8
5 years	22	*	*	*	-	-
6-11 years	209	100.0	87.0	11.1	1.3	0.5
12-17 years	238	100.0	84.8	13.7	1.5	-
18-24 years	114	100.0	88.2	10.8	1.1	-
25-34 years	107	100.0	89.1	7.0	3.9	-
35-44 years	72	100.0	85.6	13.3	1.1	-
45-54 years	104	100.0	93.2	5.4	1.3	-
55-64 years	81	100.0	85.8	9.7	4.5	-
65-74 years	25	*100.0	*100.0	-	-	-

NOTE: See appendix III for the definition of Hispanic origin.

Table 73. Handedness for females 6 months-74 years of age--number examined and percent distribution by hand preference, according to specified Hispanic origin and age: Hispanic Health and Nutrition Examination Survey, 1982-84

Hispanic origin and age	Examined persons	Hand preference				
		Total	Right	Left	Both	Not sure
Mexican American	Number	Percent distribution				
6-11 months	63	100.0	21.4	4.5	4.7	69.4
1 year	111	100.0	45.1	4.0	4.9	46.0
2 years	117	100.0	68.3	7.9	1.3	22.6
3 years	92	100.0	87.3	8.2	0.8	3.7
4 years	95	100.0	86.0	7.1	-	6.8
5 years	107	100.0	93.5	6.5	-	-
6-11 years	643	100.0	90.6	8.7	0.6	0.2
12-17 years	521	100.0	90.9	7.9	0.8	0.4
18-24 years	426	100.0	92.5	7.0	0.5	-
25-34 years	539	100.0	92.8	6.2	1.0	-
35-44 years	339	100.0	95.6	3.7	0.5	0.2
45-54 years	360	100.0	96.4	2.4	1.2	-
55-64 years	223	100.0	97.0	1.6	0.9	0.5
65-74 years	117	100.0	94.4	5.6	-	-
Cuban						
6-11 months	3	*	*	*	*	*
1 year	10	*	*	*	*	*
2 years	6	*	*	*	*	*
3 years	8	*	*	*	*	*
4 years	5	*	*	*	*	*
5 years	9	*	*	*	*	*
6-11 years	61	100.0	93.5	6.5	-	-
12-17 years	72	100.0	92.7	6.2	1.2	-
18-24 years	54	100.0	92.4	6.0	1.6	-
25-34 years	74	100.0	93.6	6.4	-	-
35-44 years	93	100.0	88.6	9.0	1.3	1.1
45-54 years	118	100.0	95.6	2.3	2.1	-
55-64 years	97	100.0	96.0	2.9	1.1	-
65-74 years	64	100.0	96.7	3.3	-	-
Puerto Rican						
6-11 months	17	*	*	*	*	*
1 year	32	*100.0	*40.2	*9.6	*2.5	*47.6
2 years	25	*100.0	*50.0	*18.6	*2.9	*28.5
3 years	39	*100.0	*67.2	*8.2	*9.5	*15.1
4 years	33	*100.0	*80.5	*14.7	*2.5	*2.3
5 years	30	*100.0	*74.6	*25.4	-	-
6-11 years	208	100.0	82.6	16.6	0.8	-
12-17 years	242	100.0	91.5	7.4	0.8	0.3
18-24 years	190	100.0	83.6	14.9	1.4	-
25-34 years	172	100.0	91.9	7.6	0.5	-
35-44 years	156	100.0	87.9	11.4	0.8	-
45-54 years	177	100.0	92.5	3.8	3.2	0.5
55-64 years	98	100.0	92.5	4.7	2.8	-
65-74 years	53	100.0	91.2	4.3	4.5	-

NOTE: See appendix III for the definition of Hispanic origin.

Appendixes

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Appendix I
Statistical notes

Survey design

The sample design of the Hispanic Health and Nutrition Examination Survey (HHANES) was similar to that of the previous National Health and Nutrition Examination Surveys. These studies have used complex, multistage, stratified, probability cluster samples of civilian noninstitutionalized persons residing in households in the United States. In hierarchical order, the stages of selection were as follows: Primary sampling unit (PSU), which is a county or a small group of contiguous counties; census enumeration district (ED); segment (a cluster of households); household; and sample person.

The major difference between HHANES and the previous national surveys is that HHANES was a survey of three special subgroups of the population in selected areas of the United States rather than a national probability sample. Even though HHANES was not designed as a survey representative of all Hispanic persons residing in the United States and national estimates cannot be made, the three HHANES universes included approximately 76 percent of the 1980 Hispanic-origin population in the United States.

The three subgroups and three areas covered by HHANES were as follows:

- Mexican American, selected counties in five Southwest States (Arizona, California, Colorado, New Mexico, and Texas).
- Cuban, Dade County, Florida (Miami).
- Puerto Rican, New York City area (New York, New Jersey, and Connecticut).

There were 229 counties with a 1980 Hispanic population of at least 1,000 that were identified and grouped into 210 PSU's, each representing a single county or a small group of counties.

The HHANES Mexican-origin universe for the Southwest consisted of 193 PSU's; for Puerto Rican-origin, 16 PSU's; and for Cuban-origin, 1 PSU.

The 1980 census information for the Mexican-origin population in the Southwest PSU's was unavailable prior to stratification; therefore, information based on Hispanics of all origins was used for the stratification process. The characteristics of the PSU's in the Southwest area that were used as stratification variables were:

1. Number of Hispanics.
2. Percent Hispanic.
3. Ratio of the 1980 to the 1970 Hispanic population.
4. Median income.
5. Percent urban.

For the New York City area component of HHANES, the corresponding stratification variables were in terms of the number of Puerto Ricans. Stratification was not required for the Miami area component of HHANES because only one PSU, Dade County, was sampled.

A critical sample design requirement for HHANES was that each stratum in the Southwest area consist of approximately equal Hispanic population size, and that each stratum in the New York City area consist of approximately equal Puerto Rican population size. Equal-size strata generally minimize sampling variances and, at the same time, permit roughly the same number of sample interviews and examinations at each survey location. This requirement was satisfied by forming equal-size strata (clusters), and then applying the same sampling fraction to each stratum.

As mentioned previously, for the Miami area, Dade County was the only PSU selected. For the New York City area, one PSU per stratum was selected with probability proportional to size (PPS). The Southwest area and the New York City area universes of PSU's were stratified according to the five demographic characteristics presented earlier.

Moreover, it was deemed desirable to maximize the probability that the proportion of sample PSU's in each of the five Southwest States would correspond to the proportion of the eligible population in each State. Therefore, during PSU selection for the Southwest area, a slightly modified version of a procedure introduced by Goodman and Kish (1950)—and summarized in Kish (1965)—was employed to obtain a balanced sample with respect to State while retaining a true probability sample design. A detailed description of this controlled selection process and its application to health examination surveys is given in other NCHS reports (1971, 1981).

The selection of the households within a PSU was based on the probability selection. The first stage of sampling the in-scope population consisted of all households and residents of group quarters (noninstitutional) containing one or more eligible Hispanic persons. Other living quarters such as military installations and Indian reserva-

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NOTE: A list of references follows the text.

tions were considered out of scope. The minimum numbers of eligible Hispanic persons per block group (BG) or enumeration district (ED) were as follows: 50–100 persons in the Southwest area; 6–100 persons in the New York City area; and about 100 persons in the Miami area.

The main purpose of selecting the households was to identify eligible Hispanic families and to select sample persons from these families to be interviewed and examined. If the family was eligible for the survey, all members of that family were eligible to be selected. To ensure a sufficient sample size in the desired estimation cells, sample persons were selected according to the sampling rates shown in table I.

Table I. Within-household sampling rates, by survey area and age: Hispanic Health and Nutrition Examination Survey, 1982–84

Survey area and age	Sampling rate
Southwest and New York City areas	
6 months–19 years	¾
20–44 years	½
45–74 years	1
Miami (Dade County)	
6 months–19 years	1
20–44 years	⅔
45–74 years	1

The HHANES sample size and response data by age and sex are shown in tables II–IV. These tables exclude persons who were non-Hispanic or of an origin that did not meet the eligibility criteria. Of the 9,455 Mexican-American persons included in HHANES in the Southwest area sample, 8,222 (87 percent) were interviewed and 7,197 (76 percent) were interviewed and examined (table II). Among the 2,125 Cuban persons sampled in the Miami area, 1,677 (79 percent) were interviewed and 1,291 (61 percent) were interviewed and examined (table III). Among the 3,525 Puerto Rican persons sampled in the New York City area, 3,137 (89 percent) were interviewed and 2,645 (75 percent) were interviewed and examined (table IV).

For each Hispanic subgroup, the numbers of examined males and females and the estimated populations they represent are given in tables V (for children) and VI (for adults). For a complete description of the sample survey design, see NCHS (1985).

NOTE: A list of references follows the text.

Table II. Sample size and response rates for Mexican Americans, by sex and age: Hispanic Health and Nutrition Examination Survey, 1982–84

Sex and age	Sample size	Interviewed		Examined	
		Number	Percent	Number	Percent
Both sexes					
Total	9,455	8,222	87.0	7,197	76.1
6 months–4 years	1,232	1,136	92.2	1,025	83.2
5–9 years	1,288	1,182	91.8	1,100	85.4
10–11 years	480	443	92.3	412	85.8
12–19 years	1,720	1,526	88.7	1,334	77.6
20–24 years	708	600	84.7	499	70.5
25–34 years	1,323	1,154	87.2	979	74.0
35–44 years	797	683	85.7	593	74.4
45–54 years	960	745	77.6	631	65.7
55–64 years	650	506	77.8	422	64.9
65–74 years	297	247	83.2	202	68.0
Male					
Total	4,589	3,929	85.5	3,385	73.8
6 months–4 years	620	577	93.1	523	84.4
5–9 years	637	584	91.7	544	85.4
10–11 years	237	219	92.4	203	85.7
12–19 years	847	749	88.4	654	77.2
20–24 years	343	285	83.1	221	64.4
25–34 years	642	550	85.7	438	68.2
35–44 years	379	303	79.9	252	66.5
45–54 years	441	323	73.2	270	61.2
55–64 years	313	233	74.4	197	62.9
65–74 years	130	103	79.2	83	63.8
Female					
Total	4,866	4,296	88.3	3,812	78.3
6 months–4 years	612	559	91.3	502	82.0
5–9 years	651	598	91.9	556	85.4
10–11 years	243	224	92.2	209	86.0
12–19 years	873	777	89.0	680	77.9
20–24 years	365	315	86.3	278	76.2
25–34 years	681	604	88.7	541	79.4
35–44 years	418	380	90.9	341	81.6
45–54 years	519	422	81.3	361	69.5
55–64 years	337	273	81.0	225	66.8
65–74 years	167	144	86.2	119	71.3

NOTE: Data are for Mexican Americans residing in the Southwest area (selected counties in Arizona, California, Colorado, New Mexico, and Texas).

Table III. Sample size and response rates for Cubans, by sex and age: Hispanic Health and Nutrition Examination Survey, 1982–84

Sex and age	Sample size	Interviewed		Examined	
		Number	Percent	Number	Percent
Both sexes					
Total	2,125	1,677	78.9	1,291	60.8
6 months–4 years	144	122	84.7	85	59.0
5–9 years	134	115	85.8	93	69.4
10–11 years	65	54	83.1	43	66.2
12–19 years	301	252	83.7	205	68.1
20–24 years	131	91	69.5	65	49.6
25–34 years	239	181	75.7	139	58.2
35–44 years	240	197	82.1	147	61.3
45–54 years	381	286	75.1	233	61.2
55–64 years	300	240	80.0	176	58.7
65–74 years	190	139	73.2	105	55.3
Male					
Total	999	786	78.7	608	60.9
6 months–4 years	72	62	86.1	51	70.8
5–9 years	67	54	80.6	40	59.7
10–11 years	34	30	88.2	26	76.5
12–19 years	163	136	83.4	114	69.9
20–24 years	56	37	66.1	27	48.2
25–34 years	111	83	74.7	64	57.7
35–44 years	100	82	82.0	52	52.0
45–54 years	188	140	74.5	114	60.6
55–64 years	137	106	77.4	79	57.7
65–74 years	71	56	78.9	41	57.7
Female					
Total	1,126	891	79.1	683	60.7
6 months–4 years	72	60	83.3	34	47.2
5–9 years	67	61	91.0	53	79.1
10–11 years	31	24	77.4	17	54.8
12–19 years	138	116	84.1	91	65.9
20–24 years	75	54	72.0	38	50.7
25–34 years	128	98	76.6	75	58.6
35–44 years	140	115	82.1	95	67.9
45–54 years	193	146	75.6	119	61.7
55–64 years	163	134	82.2	97	59.5
65–74 years	119	83	69.7	64	53.8

NOTE: Data are for Cubans residing in the Miami area (Dade County, Florida).

Table IV. Sample size and response rates for Puerto Ricans, by sex and age: Hispanic Health and Nutrition Examination Survey, 1982–84

Sex and age	Sample size	Interviewed		Examined	
		Number	Percent	Number	Percent
Both sexes					
Total	3,525	3,137	89.0	2,645	75.0
6 months–4 years	424	388	91.5	335	79.0
5–9 years	411	374	91.0	338	82.2
10–11 years	162	152	93.8	136	84.0
12–19 years	764	704	92.1	616	80.6
20–24 years	260	219	84.2	173	66.5
25–34 years	389	336	86.4	279	71.7
35–44 years	321	277	86.3	229	81.3
45–54 years	396	346	87.4	281	71.0
55–64 years	261	224	85.8	179	68.6
65–74 years	137	117	85.4	79	57.7
Male					
Total	1,575	1,385	87.9	1,155	73.3
6 months–4 years	221	207	93.7	175	79.2
5–9 years	208	186	89.4	169	81.3
10–11 years	80	73	91.3	65	81.3
12–19 years	375	339	90.4	301	80.3
20–24 years	97	79	81.4	55	56.7
25–34 years	163	135	82.8	107	65.6
35–44 years	118	97	82.2	73	61.9
45–54 years	153	133	86.9	104	68.0
55–64 years	114	97	85.1	81	71.1
65–74 years	46	39	84.8	25	54.3
Female					
Total	1,950	1,752	89.8	1,490	76.4
6 months–4 years	203	181	89.2	160	78.8
5–9 years	203	188	92.6	169	83.3
10–11 years	82	79	96.3	71	86.6
12–19 years	389	365	93.8	315	81.0
20–24 years	163	140	85.9	118	72.4
25–34 years	226	201	88.9	172	76.1
35–44 years	203	180	88.7	156	76.8
45–54 years	243	213	87.7	177	72.8
55–64 years	147	127	86.4	98	66.7
65–74 years	91	78	85.7	54	59.3

NOTE: Data are for Puerto Ricans residing in the New York City area (New York, New Jersey, and Connecticut).

Table V. Number of examined persons 6 months–19 years of age and estimated population, by specified Hispanic origin, sex, and age of examinee: Hispanic Health and Nutrition Examination Survey, 1982–84

Sex and age	Mexican American		Cuban		Puerto Rican	
	Number of examined persons	Estimated population in thousands	Number of examined persons	Estimated population in thousands	Number of examined persons	Estimated population in thousands
Male						
6 months–19 years	1,924	1,979	231	65	710	269
6–11 months	57	60	4	1	17	6
1 year	106	108	15	4	39	14
2 years	111	108	8	2	37	15
3 years	131	127	11	3	39	15
4 years	118	117	13	4	43	16
5 years	116	107	1	–	24	9
6 years	110	102	11	3	37	14
7 years	110	101	11	3	39	15
8 years	102	93	9	3	42	15
9 years	106	95	8	2	27	10
10 years	88	81	14	4	38	14
11 years	115	105	12	3	27	10
12 years	115	111	16	4	37	14
13 years	98	91	12	3	39	15
14 years	97	123	20	6	40	15
15 years	69	93	10	3	38	15
16 years	76	98	14	4	44	18
17 years	71	93	14	4	43	16
18 years	64	80	12	3	35	14
19 years	64	85	16	5	25	9
Female						
6 months–19 years	1,947	1,925	195	59	715	267
6–11 months	63	60	3	1	21	7
1 year	123	121	10	3	37	14
2 years	121	114	6	2	28	11
3 years	99	97	9	3	40	15
4 years	96	91	6	2	34	13
5 years	109	97	9	3	30	11
6 years	118	109	9	3	35	13
7 years	96	86	11	4	39	14
8 years	108	96	12	4	31	12
9 years	125	110	12	4	34	12
10 years	94	95	5	2	37	14
11 years	115	113	12	3	34	13
12 years	103	105	16	6	35	13
13 years	90	90	14	4	46	16
14 years	75	83	10	3	35	13
15 years	85	97	6	2	46	18
16 years	99	109	11	3	43	16
17 years	75	86	16	4	38	15
18 years	78	84	8	2	37	13
19 years	75	81	10	3	35	14

NOTE: See appendix III for the definition of Hispanic origin. Figures include unknowns.

Table VI. Number of examined persons 18–74 years of age and estimated population, by specified Hispanic origin, sex, and age of examinee: Hispanic Health and Nutrition Examination Survey, 1982–84

Sex and age	Mexican American		Cuban		Puerto Rican	
	Number of examined persons	Estimated population in thousands	Number of examined persons	Estimated population in thousands	Number of examined persons	Estimated population in thousands
Male						
18–74 years	1,589	2,748	405	155	505	260
20–74 years	1,461	2,583	377	147	445	237
18–24 years	349	701	55	22	115	58
20–24 years	221	536	27	14	55	35
25–34 years	438	881	64	32	107	75
35–44 years	252	502	52	27	73	53
45–54 years	270	316	114	36	104	38
55–64 years	197	221	79	24	81	28
65–74 years	83	126	41	13	25	9
Female						
18–74 years	2,018	2,714	506	187	847	424
20–74 years	1,865	2,549	488	182	775	397
18–24 years	431	640	56	22	190	103
20–24 years	278	475	38	17	118	76
25–34 years	541	817	75	35	172	108
35–44 years	341	495	95	43	156	104
45–54 years	361	359	119	38	177	60
55–64 years	225	253	97	29	98	31
65–74 years	119	149	64	19	54	18

NOTES: See appendix III for the definition of Hispanic origin. Figures include unknowns.

Estimation procedures

Because the design of HHANES is a complex multistage probability sample, the estimates are derived through a multistage estimation procedure. The procedure consisted of four components:

1. Inflation of sample person observations by the product of the reciprocals of the probabilities of selection at each stage of the design (PSU, segment, household, and sample person).
2. Adjustment for nonresponse within homogeneous sociodemographic cells to reduce the potential bias attributable to nonresponse, under the assumption that within cells the characteristics of the respondents are similar to those of the nonrespondents.
3. Adjustment for noncoverage within the PSU to reduce the potential bias due to the exclusion of BG's and ED's with few Hispanic residents.
4. Poststratified ratio adjustment by age and sex to make the final estimates of the population correspond to U.S. Bureau of the Census estimates of the civilian noninstitutionalized target population (used only for Mexican Americans). The percent distributions of the nonresponse adjustment factors for interviewed and examined Mexican-American, Cuban, and Puerto Rican persons are shown in tables VII–IX.

Nonresponse bias

In any health examination survey such as HHANES, there exists the potential for three levels of nonresponse: household interview nonresponse, examination nonresponse, and item nonresponse. Household interview nonresponse occurs when the household medical history questionnaire is not completed. Examination nonresponse

Table VII. Percent distribution of nonresponse adjustment factors for interviewed and examined persons in the Southwest area: Hispanic Health and Nutrition Examination Survey, 1982–84

Size of factor	Interviewed	Examined
	Percent distribution	
Total	100.0	100.0
1.00–1.24	82.5	87.1
1.25–1.49	14.0	11.1
1.50–1.74	2.2	1.2
1.75–1.99	1.1	0.3
2.00–2.50	0.2	0.2

Table VIII. Percent distribution of nonresponse adjustment factors for interviewed and examined persons in the Miami area: Hispanic Health and Nutrition Examination Survey, 1982–84

Size of factor	Interviewed	Examined
	Percent distribution	
Total	100.0	100.0
1.00–1.24	20.3	38.0
1.25–1.49	77.6	57.6
1.50–1.60	2.1	4.4

Table IX. Percent distribution of nonresponse adjustment factors for interviewed and examined persons in the New York City area: Hispanic Health and Nutrition Examination Survey, 1982–84

Survey status and size of factor	Percent distribution
Interviewed	
Total	100.0
< 1.10	57.5
1.10–1.19	24.2
≥ 1.20	18.2
Examined	
Total	100.0
< 1.20	62.6
1.20–1.49	35.4
≥ 1.50	2.1

occurs when those sample persons who respond to the household questions do not come to the examination center for the examination. Item nonresponse results when sample persons, interviewers, or examiners do not complete some portion of either the household interview questionnaire or the examination protocol.

The potential effect of any nonresponse bias is greater when response rates are low. Therefore, intense efforts were undertaken during HHANES to develop and implement procedures and inducements that would reduce all types of nonresponse and thereby reduce the potential for bias in the survey estimates.

It is difficult to determine the effect of nonresponse bias. However, rough estimates of bias can be made for an interview and examination survey such as HHANES by comparing the household interview data from sample persons who were examined with interview data from those who were not examined. Because the interview response rate is substantially higher than the examination response rate, nonresponse bias with respect to selected health characteristics may be estimated from the large amount of medical history data available on nonexamined sample persons.

Because the examination was considered the most important analytic component of the survey, a survey "respondent" was defined as a person who had completed the examination as well as all interview components. A "nonrespondent," then, was a sample person who was not examined, regardless of whether or not any interview data had been obtained. In the three Hispanic subgroups, 23.9 percent of the Mexican Americans, 39.2 percent of the Cubans, and 25 percent of the Puerto Ricans did not complete the examination. They can be divided into three groups:

1. Those for whom medical and demographic interview data were collected.
2. Those for whom only demographic information is available.
3. Those about whom nothing is known.

A comparison of the interview data from these first two groups and the examined group may provide some understanding of the extent of bias due to nonresponse to the examination. The group for whom incomplete data are available accounts for roughly 10 percent of the original sample and remains a potential source of unmeasurable error. It is possible that these persons differ substantially from those who were located and who agreed to participate. Several reports have been published on the health examination survey issues of nonresponse bias (NCHS, 1969b and 1974; and Institute for Survey Research, 1975) and participation factors (Findlay and Schaible, 1980; NCHS, 1965b, 1969b, 1972, 1975; U.S. National Health Survey, 1961).

NOTE: A list of references follows the text.

Table X. Number of examined persons with missing anthropometric measurements: Hispanic Health and Nutrition Examination Survey, 1982–84

Measurement	Mexican American	Cuban	Puerto Rican
Biacromial breadth	47	7	36
Biiliac crest breadth	49	6	38
Bitrochanteric breadth	50	7	41
Elbow breadth	60	10	39
Triceps skinfold	47	7	40
Subscapular skinfold	49	10	40
Iliac crest skinfold	47	7	42
Medial calf skinfold	63	10	47
Maximal calf circumference	52	9	40
Chest circumference:			
Erect	79	6	24
Supine	28	3	15
Head circumference	87	6	28
Midupper arm circumference	48	8	39
Sitting height	52	14	15
Standing height	16	3	9
Recumbent length	26	2	17
Crown-rump length	28	2	18
Weight	22	4	32
Handedness	112	13	37

Missing data

Examination surveys lose information not only through failure to examine all sample persons, but also from failure to obtain and record all items of information for examined persons. Age, sex, and national origin were known for every examined person. However, for a number of examinees one or more of the anthropometric measurements were not available. The extent of these missing measurements is shown in table X.

Measures of variability

Because the statistics presented in this report are based on a sample, they may differ from the figures that would have been obtained if a complete census had been taken using the same survey instruments, instructions, interview and examination personnel, and procedures. The probability design of this survey permits the estimation of standard deviations and errors although the techniques must take the highly clustered, multistage probability sample design into account. The reader should be aware that estimates of variances and standard errors from this type of design are different from and generally larger than standard errors calculated under the assumption of simple random sampling.

The standard deviation is a measure of the dispersion of the observations in a population and is useful in describing the width of the distribution of the values in a population. This measure can usually be estimated from a probability sample. As estimated in this report, the standard deviation also reflects part of the variation that arises in the measurement process. If the values follow a normal (that is, Gaussian) distribution in a population, as do the stature measurements, then one standard deviation above and below the mean encompasses approximately 68 percent of the distribution; two standard deviations, about 95 percent; and 2½ standard deviations, about 99 percent. The estimates of standard deviations presented in the detailed tables were calculated using the sample weights.

Approach for data analysis

There are two aspects of the HHANES design that must be taken into account in analysis—the sample weight and the complex sample design. Weights are needed to estimate means, medians, and other descriptive statistics. Weights and the strata and PSU's from the sample design are needed to estimate variances and test for statistical significance. Each person in the sample represents a large number of people in the target Hispanic population. The sample weights, which incorporate the selection probabilities, a nonresponse and noncoverage adjustment, and post-stratification (Mexican Americans only), must be used to produce the correct population estimates.

Even though the total number of examined persons in HHANES was quite large, subclass analyses can lead to estimates that are unstable, particularly estimates of variances for the Cuban and Puerto Rican samples. Consequently, analyses of subclasses require that the user pay particular attention to the number of sample persons in the subclass and the number of PSU's that contain at least one sample person in the subclass. Small sample sizes, or a small number of PSU's used in the variance calculations, may produce unstable estimates of the variances.

Sample design and variance estimation

The need for incorporation of the sample design is not as readily apparent as the need for incorporating weights. Most of the methods of statistical analysis taught in classes depend on the assumption of simple random sampling. In surveys with complex sample designs, the assumption of simple random sampling is seldom appropriate. It usually leads to estimating smaller variances than those estimated taking the complex sample design into account. The smaller variances lead to finding more statistically significant differences than would be found using the complex sample design. A design effect is often used to show the impact of the complex sample design variances:

$$\text{Design effect} = \frac{\text{Variance}_{CS}}{\text{Variance}_{SRS}}$$

Where CS = complex sample and SRS = simple random sample.

If the design effect is near 1, the complex sample design has little effect on the variances and one could consider assuming simple random sampling for the analysis.

The following guidelines were used in the calculation of the average design effects:

1. Exclude all persons of non-Hispanic origin.
2. Exclude all estimates for large age ranges, such as all ages combined or all adults.
3. Exclude all estimates where the proportion of the subpopulation with the specific characteristics or condition was zero percent or 100 percent.

Design effects tend to be larger when age groups are combined, just as they are when the sexes are combined, as shown in tables XI–XIII. The data in these tables demonstrate the range in design effects for selected response variables. Suppose, for example, that the average (mean) weight for 195 Mexican-American males ages 55–64 years was 168 pounds. Suppose, also, that the simple random sample variance was 4.55. The complex sample variance is determined by multiplying the simple random sample variance by the design effect (DEFF). Thus the complex sample variance = simple random sample variance × DEFF, or 4.55 × 1.3 = 5.92.

Table XI. Average design effects, for anthropometric measurements of Mexican Americans, by sex: Hispanic Health and Nutrition Examination Survey, 1982–84

Measurement[1]	Mean or proportion	Both sexes	Male	Female
Biacromial breadth (6 months–74 years)	$\bar{x}$	1.8	1.6	1.4
Biiliac crest breadth (6 months–74 years)	$\bar{x}$	1.4	1.2	1.1
Bitrochanteric breadth (6 months–74 years)	$\bar{x}$	1.6	1.4	1.2
Elbow breadth (6 months–74 years)	$\bar{x}$	2.1	1.9	2.1
Triceps skinfold (6 months–74 years)	$\bar{x}$	1.1	1.5	1.3
Subscapular skinfold (6 months–74 years)	$\bar{x}$	2.1	1.8	1.8
Iliac crest skinfold (6 months–74 years)	$\bar{x}$	2.9	2.1	2.1
Medial calf skinfold (6 months–74 years)	$\bar{x}$	1.6	1.8	2.1
Maximal calf circumference (6 months–74 years)	$\bar{x}$	1.3	1.2	1.0
Chest circumference, erect (2–7 years)	$\bar{x}$	1.0	1.0	1.0
Chest circumference, supine (6 months–3 years)	$\bar{x}$	1.0	1.0	1.0
Head circumference (2–7 years)	$\bar{x}$	1.9	1.4	1.4
Midupper arm circumference (6 months–74 years)	$\bar{x}$	1.1	1.3	1.0
Sitting height (2–74 years)	$\bar{x}$	1.5	1.4	1.5
Standing height (2–74 years)	$\bar{x}$	1.6	1.5	1.7
Recumbent length (6 months– 3 years)	$\bar{x}$	1.4	1.0	1.4
Crown-rump length (6 months–3 years)	$\bar{x}$	1.5	1.2	1.5
Weight (6 months–74 years)	$\bar{x}$	1.4	1.3	1.0
Body mass index (2–74 years)	$\bar{x}$	1.6	1.5	1.2
Overweight (20–74 years)	p	1.3	1.4	1.1

[1]Ages in parentheses indicate the age group for which the measurement was obtained.

Table XII. Average design effects for anthropometric measurements of Cubans, by sex: Hispanic Health and Nutrition Examination Survey, 1982–84

Measurement[1]	Mean or proportion	Both sexes	Male	Female
Biacromial breadth (6 months–74 years)	$\bar{x}$	1.0	1.0	1.0
Biiliac crest breadth (6 months–74 years)	$\bar{x}$	1.0	1.0	1.0
Bitrochanteric breadth (6 months–74 years)	$\bar{x}$	1.3	1.1	1.0
Elbow breadth (6 months–74 years)	$\bar{x}$	1.0	1.2	1.0
Triceps skinfold (6 months–74 years)	$\bar{x}$	1.0	1.0	1.0
Subscapular skinfold (6 months–74 years)	$\bar{x}$	1.0	1.0	1.0
Iliac crest skinfold (6 months–74 years)	$\bar{x}$	1.0	1.0	1.0
Medial calf skinfold (6 months–74 years)	$\bar{x}$	1.0	1.0	1.0
Maximal calf circumference (6 months–74 years)	$\bar{x}$	1.1	1.1	1.0
Chest circumference, erect (2–7 years)	$\bar{x}$	1.0	1.0	1.1
Chest circumference, supine (6 months–3 years)	$\bar{x}$	1.2	1.0	1.0
Head circumference (2–7 years)	$\bar{x}$	1.1	1.2	1.1
Midupper arm circumference (6 months–74 years)	$\bar{x}$	1.0	1.1	1.0
Sitting height (2–74 years)	$\bar{x}$	1.1	1.2	1.3
Standing height (2–74 years)	$\bar{x}$	1.1	1.2	1.4
Recumbent length (6 months–3 years)	$\bar{x}$	1.1	1.0	1.0
Crown-rump length (6 months–3 years)	$\bar{x}$	1.1	1.0	1.0
Weight (6 months–74 years)	$\bar{x}$	1.3	1.1	1.1
Body mass index (2–74 years)	$\bar{x}$	1.2	1.0	1.1
Overweight (20–74 years)	p	1.0	1.0	1.0

[1]Ages in parentheses indicate the age group for which the measurement was obtained.

Table XIII. Average design effects for anthropometric measurements of Puerto Ricans, by sex: Hispanic Health and Nutrition Examination Survey, 1982–84

Measurement[1]	Mean or proportion	Both sexes	Male	Female
Biacromial breadth (6 months–74 years)	$\bar{x}$	1.4	1.5	1.4
Biiliac crest breadth (6 months–74 years)	$\bar{x}$	1.6	1.4	1.6
Bitrochanteric breadth (6 months–74 years)	$\bar{x}$	1.9	1.6	1.6
Elbow breadth (6 months–74 years)	$\bar{x}$	1.9	1.8	1.8
Triceps skinfold (6 months–74 years)	$\bar{x}$	1.6	1.5	1.7
Subscapular skinfold (6 months–74 years)	$\bar{x}$	1.0	1.0	1.4
Iliac crest skinfold (6 months–74 years)	$\bar{x}$	1.2	1.0	1.2
Medial calf skinfold (6 months–74 years)	$\bar{x}$	1.1	1.2	1.4
Maximal calf circumference (6 months–74 years)	$\bar{x}$	1.5	1.6	1.2
Chest circumference, erect (2–7 years)	$\bar{x}$	2.5	2.5	1.3
Chest circumference, supine (6 months–3 years)	$\bar{x}$	1.0	1.0	1.0
Head circumference (2–7 years)	$\bar{x}$	1.5	1.4	1.0
Midupper arm circumference (6 months–74 years)	$\bar{x}$	1.6	1.6	1.3
Sitting height (2–74 years)	$\bar{x}$	1.5	1.7	1.3
Standing height (2–74 years)	$\bar{x}$	1.6	1.7	1.6
Recumbent length (6 months–3 years)	$\bar{x}$	1.0	1.0	1.0
Crown-rump length (6 months–3 years)	$\bar{x}$	1.0	1.0	1.0
Weight (6 months–74 years)	$\bar{x}$	1.2	1.4	1.2
Body mass index (2–74 years)	$\bar{x}$	1.0	1.1	1.0
Overweight (20–74 years)	p	1.0	1.2	1.0

[1]Ages in parentheses indicate the age group for which the measurement was obtained.

In a similar way, the complex sample variance of a percent can be determined. Assuming simple random sampling, the variance for the percent is calculated by converting the percent to a proportion and using the standard formula for the variance of a proportion.

$$\text{VAR} = \frac{pq}{n}$$

where p = percent, and $q = 1 - p$.

This variance (VAR) multiplied by the design effect (DEFF) provides an estimate of the variance from a complex sample of the same sample size (n).

For example: The percent overweight for Mexican-American males ages 20–74 years is equal to 29.6.

$$\text{Variance}_{\text{SRS}} = \frac{(0.296)(0.704)}{1{,}454} = 0.000143$$

$$\text{Variance}_{\text{CS}} = 0.000143 \times 1.4 = 0.0002$$

This variance (simple random sample) multiplied by the design effect provides an estimate of the variance from a complex sample of the same sample size (n).

The user then can proceed with estimating confidence intervals and testing hypotheses in the usual manner. Tables XI–XIII show design effects for HHANES anthropometric measurements.

The user should recognize that this approach does not incorporate the variance-covariance matrix. In most cases, this leads to a slight overestimate of the variance because the covariance terms, which are subtracted in the variance of a ratio, in general are positive. Thus, in a borderline case, the null hypothesis would be less likely to be rejected (Freeman and Brock, 1978).

The computer program SESUDAAN (Shah, 1981) was used to compute the age-specific design effects that are the basis for the average design effects. Estimates for large age ranges, such as all ages combined or all adults, are not included in these averages.

The statistical approach used for computing the complex sample variances in SESUDAAN is a first-order Taylor approximation of the deviations of estimates from their expected values. This method for obtaining approximations of complex sample variances in large samples is well known (Kendall and Stuart, 1963). Woodruff (1971) presented applications of this technique to sample surveys.

Statistical testing and variance estimation

In order to eliminate many of the tables that would be required to present variance estimates for all of the statistics in this report, a "variance smoothing" approach has been used for the presentation of estimated variances for the anthropometric measures. By using this approach, a variance estimate for a sample mean ($\bar{x}_i$) is produced in two steps. First, the simple random sample estimate of variance is calculated by squaring the standard deviation of the sample (Sx_i) and dividing by the size of the sample (n_i). This step is summarized by the following equation:

$$\text{Variance}_{\text{SRS}} = (Sx_i)^2/n_i$$

Second, the simple random sample estimate of variance is multiplied by a design effect (defined as the effect that the complex sampling design has on the magnitude of the variances) that corresponds to the variable of interest (such as type of body measurement by Hispanic origin and sex) to produce the complex sample variance estimate of ($\bar{x}_i$).

The complex sample variance of a percent can be determined in a similar way. Assuming simple random sampling, the variance for the percent is calculated by converting the percent to a proportion and using the standard formula for the variance of a proportion.

$$\text{Variance}_{\text{SRS}} = pq/n$$

This variance (simple random sample) multiplied by the design effect provides an estimate of the variance from a complex sample of the same sample size (n).

The following example is illustrative. The variances for the mean standing heights in inches of Mexican-American and Cuban males ages 18–24 years (denoted by $\bar{x}_{\text{MA}}$ and $\bar{x}_{\text{C}}$ respectively) are estimated using the following calculations:

- For Mexican-American males 18–24 years:

  $\text{Variance}_{\text{SRS}} = (2.7)^2/345 = 0.021.$

- For Cuban males 18–24 years:

  $\text{Variance}_{\text{SRS}} = (2.3)^2/55 = 0.096.$

NOTE: A list of references follows the text.

Thus, the estimated complex sample variances are as follows:

- For Mexican-American males:

  $\text{Variance}_{CS} = (0.021) \times (1.5) = 0.032.$

- For Cuban males:

  $\text{Variance}_{CS} = (0.096) \times (1.2) = 0.115$

Once the complex sample variance has been calculated using the design effect, one can proceed with the standard procedures for statistical hypothesis testing.

In order to test the difference in mean standing height between Cuban males ($\bar{x}_C$) and Mexican-American males ($\bar{x}_{MA}$) ages 18–24 years, the statistic (for which the covariance between the means is ignored) is defined as

$$T = (\bar{x}_C - \bar{x}_{MA})/\sqrt{\text{VAR}\,\bar{x}_C + \text{VAR}\,\bar{x}_{MA}}$$

This statistic is assumed to have student's T distribution with 16 degrees of freedom because each sample mean has 8 degrees of freedom.

Using the appropriate means and the variances described previously, the T statistic for this example is

$$T = (68.5 - 67.4)/\sqrt{0.032 + 0.115}$$
$$= 2.87 \ (p < .015)$$

The user should recognize that this approach does not incorporate the variance-covariance matrix. In most cases, this leads to a slight overestimate of the variance because the covariance terms that are subtracted in the variance of a ratio are usually positive.

Age adjustment

The age-adjusted percents presented in this report were calculated by the direct method and were adjusted to the age distribution of the civilian noninstitutionalized 1980 census population. Because age distributions differ by sex and specified Hispanic origin, comparisons should be made using age-adjusted values. Age-adjusted data for sex and specified Hispanic origin groups can be compared directly, as the values assume identical age distributions for all subgroups. These adjusted or standardized values are meaningful only when comparing subgroups of the population to control for confounding by age.

Appendix II
Data presentation and reliability

The estimates in this report numerically describe the distribution of body measurements and overweight in certain population groups. Among the descriptive measures are means, percentiles, percents, percent distributions, and standard deviations.

The mean value for a population group is the sum of each value times its weight in the group divided by the sum of the weights for that group. Age-adjusted means assume that each group has the same age distribution, thus adjusting for the effect of age and allowing comparison of combined mean values among population groups.

A percentile is a value that indicates the percent of people in a population with a value less than or equal to the percentile value. The prevalence rate for a population is the proportion of persons believed to be at risk for a particular condition or disease in the population or who exhibit the condition, disease, or risk characteristic at a given time.

The standard deviation estimates the degree to which values vary in a population. A large standard deviation indicates that the distribution of values is broad and flat; a small estimated standard deviation implies a narrow, spiked distribution. For further discussion of these measures, see appendix I.

The statistical guidelines used in this report for reporting means, standard deviations, and percentiles are as follows.

Means and percents:

- If the sample size in the cell was less than 25, the estimated sample mean or percent is not reported.
- If the sample size was 25–44, the sample mean or percent is reported with an asterisk (*) beside it to indicate that the statistic does not meet the reliability standard.
- If the sample size was 45 or more, the sample mean or percent is presented without caveat.

Standard deviations:

- If the sample size in the cell was less than 25, no estimated values for the standard deviation are presented.

Percentiles:

- The following minimum sample sizes were required for the presentation of percentile estimates given in this report:

Sample size	*Percentile*
10	50th
20	25th and 75th
35	15th and 85th
50	10th and 90th
100	5th and 95th

- If these minimum sample sizes were not met, there is an asterisk in the cell.

Appendix III
National origin recode

In the Hispanic Health and Nutrition Examination Survey (HHANES), if any family member was identified as being an eligible Hispanic person (as defined below), all members of that person's family, regardless of origin, were eligible to be selected as sample persons (NCHS, 1985). Thus, it was possible to include sample persons in the total sample who were either non-Hispanic or Hispanic, but not of the appropriate origin for inclusion in the analysis of a specified subgroup in a given portion of the survey. The national origin recode specifies whether a sample person was considered to be "Hispanic" (recode 1), "non-eligible Hispanic" (recode 2), or "non-Hispanic" (recode 2) for purposes of analysis. "Hispanic" is defined as

Mexican American, residing in the Southwest area;
Cuban, residing in Dade County, Florida; or
Puerto Rican, residing in the New York City area.

The recode was assigned as follows (see table XIV for original codes):

Southwest area

If the original national origin or ancestry response code (from the Household Screener Questionnaire) was 1, 2, 3, 8, 10, or 11, then *National origin recode* = 1.

If the original national origin or ancestry was 4, 5, 6, 7, 9, or 0 but the person specified Mexican/Mexicano, Chicano, or Mexican American on the adult sample person questionnaire, or if the person was the biological child of a household member with *recode* equal to 1 (as determined by questions A1–A11 on the Family Questionnaire), then *National origin recode* = 1.

In all other cases, *National origin recode* = 2.

Table XIV. Number of sample persons in specified Hispanic group, by response codes obtained from self-identification of national origin or ancestry during household questionnaire: Hispanic Health and Nutrition Examination Survey, 1982–84

Response code		Mexican American	Cuban	Puerto Rican
0	Other—specify	276	30	114
1	Mexican/Mexicano	1,641	1	1
2	Mexican American	5,202	-	-
3	Chicano	102	-	-
4	Puerto Rican	7	3	2,596
5	Boricuan	-	-	36
6	Cuban	4	1,069	20
7	Cuban-American	-	222	-
8	Hispaño—specify	150	14	26
9	Other Latin-American or other Spanish	37	18	41
10	Spanish American	22	-	-
11	Spanish (Spain)	21	-	-

Dade County, Florida, area

If the original national origin or ancestry code was 6 or 7, then *National origin recode* = 1.

In all other cases, *National origin recode* = 2.

New York City area

If the original national origin or ancestry code was 4 or 5, then *National origin recode* = 1.

If national origin or ancestry was 1, 2, 3, 6, 7, 8, 9, or 0 but the person specified Boricuan or Puerto Rican on the adult sample person questionnaire (question M10), or if the person was the biological child of a household member with *recode* equal to 1 (as determined by questions A1–A11 on the family questionnaire), then *National origin recode* = 1.

In all other cases, *National origin recode* = 2.

Use of recode

The national origin recode may be used in analysis in one of two ways. First, selecting on *recode* = 1 (as has been done for this report) will restrict analysis to "Hispanics" only. In this case, in the Southwest area of the survey, the weighted estimates by age and sex will approximately equal U.S. Bureau of the Census population estimates of the number of Mexican Americans and a small proportion of other Hispanics assumed to be Hispaño in the Southwest area (selected counties in Arizona, California, Colorado, New Mexico, and Texas) at the midpoint of the Mexican American portion of HHANES—March 1983. The weighted estimates for Cubans represent an independent estimate of the number of Cubans in Dade County at the midpoint—February 1984. The weighted estimates of Puerto Ricans represent an independent estimate of the number of Puerto Ricans in the sample counties in New York, New Jersey, and Connecticut at the midpoint of the Puerto Rican portion—September 1984.

Second, using *recode* greater than 0, that is, all sample persons, will include "Hispanic" and "non-Hispanic" persons; and the Southwest weighted estimates by age and sex will overestimate the U.S. Bureau of the Census population estimates of Mexican Americans and other Hispanics by about 4.5 percent. In Dade County, using recode greater than 0 will increase the weighted estimates by about 5.3 percent over that for Cuban Americans only; and using recode greater than 0 for the New York City area will increase the weighted estimates by about 9.2 percent over that for Puerto Ricans only.

Appendix IV
Recording form

Form PHS 6214-2
9 8 82

OMB No. 0937-0078
Approval Expires 12/84

Department of Health and Human Services
Public Health Service
Office of Health Research, Statistics, and Technology
National Center for Health Statistics

BODY MEASUREMENTS (501)
(AGES 6 MONTHS - 74 YEARS)

HISPANIC HEALTH AND NUTRITION EXAMINATION SURVEY

NOTICE — Information contained on this form which would permit identification of any individual or establishment has been collected with a guarantee that it will be held in strict confidence, will be used only for purposes stated for this study, and will not be disclosed or released to others without the consent of the individual or the establishment in accordance with section 308(d) of the Public Health Service Act (42 USC 242m).

a. Age	b. Sex	c. Examiner No.	d. Recorder No.
— — ☐ Yrs. ☐ Mos.	☐ M ☐ F	(102) — — —	(103) — — —

NOTE - Measure left side also if the last digit of examinee's sample number is 3 or 6.

1. Biacromial breadth (cm)	(104)	— — · —
2. Biiliac crest breadth (cm)	(105)	— — · —
3. Bitrochanteric breadth (cm)	(107)	— — · —

		Right Side		Left Side
4. Elbow breadth (cm)	(108)	— — · —	(115)	— — · —
5. Upper arm girth (cm)	(109)	— — · —	(116)	— — · —
6. Triceps skinfold (mm)	(110)	— — · —	(117)	— — · —
7. Subscapular skinfold (mm)	(111)	— — · —	(118)	— — · —
8. Iliac crest skinfold (mm)	(112)	— — · —	(119)	— — · —
9. Medial calf circumference (cm)	(113)	— — · —	(120)	— — · —
10. Medial calf skinfold (mm)	(114)	— — · —	(121)	— — · —

11. Examinee right/left handed (122) 1 ☐ Right 2 ☐ Left 3 ☐ Both 4 ☐ Not sure

12. Weight (kilograms)	(123)	— — — · — —
13. Sitting height (cm) (ages 2 and over)	(124)	— — · —
14. Standing height (cm) (ages 2 and over)	(125)	— — — · —
15. Chest circumference - Midpoint		
a. Chest erect (cm) (ages 2 through 7)	(126)	— — · —
b. Chest supine (cm) (ages 3 and under)	(127)	— — · —
16. Head circumference (ages 7 and under) (cm)	(128)	— — · —
17. Recumbent length (ages 3 and under) (cm)	(129)	— — — · —
18. Crown rump length (ages 3 and under) (cm)	(130)	— — · —

NOTE: Item 9 (Medial calf circumference) should read Maximal calf circumference.

Appendix V
Body measurement equipment and procedures

The following information is excerpted from Instruction Manual Part 15a, Examination Staff Procedures Manual for the Hispanic Health and Nutrition Examination Survey, 1982–84

Equipment

Anthropometer parts: 2 sets of four sections each, 4 sliding arms, 1 metal base
Body measurement table
Footstool
Bitrochanteric calipers
Elbow calipers
Lange skinfold calipers
Steel tape
Insertion tape
Special height scale
Polaroid Land camera with closeup photographic lens
Special light attachment for camera
Self-zeroing weight scale
Toledo 8805 ticket printer
Toledo keyboard
Set of weights for calibration of weight scale (one 25-lb weight and five 50-lb weights)
Infant measuring board

Measuring and recording

Most of the body measurements are taken on all examinees. Some of the measurements are taken only on various subsets of examinees. Two anthropometers are provided; one is to be used for measuring and one is to be calibrated and reserved as a spare. Each anthropometer consists of four sections of rod and two caliper arms. The rod section used for bitrochanteric breadth measurements has one arm fixed to the top end of the instrument and the other arm free to slide. Two other rod sections are used for sitting heights and will be mounted in the metal base. The remaining section can be used as a spare when required.

The anthropometric measurements consist of various heights, breadths, girths, and skinfolds. Certain measurements are routinely taken on the right side. If, because of casts, amputations, or other reasons, any of these particular measurements is taken on the left side, note the reason on the body measurement page and on the unusual occurrence form.

All measurements, except skinfolds, should be taken to the nearest tenth of a centimeter. Skinfold measurements are taken to the nearest half of a millimeter. If the digit to the right of the last digit to be recorded appears to be exactly "five," raise the last digit to be recorded one unit if that digit is an odd number or leave it unchanged if it is an even number. This is sometimes known as the "odd up-even down rule."

When the examinee's sample number ends in a "3" or a "6," all skinfold measurements and the elbow breadth, upper arm girth, and maximal calf circumference are to be done on the left side as well as on the right side of the body. If any measurement cannot be taken on the left side, write the reason not done on both the body measurement and unusual occurrence forms.

If a skinfold is too tight to be measured, write "tight skin" in the recording space for that skinfold.

If a skinfold is above the measurable limits of the calipers, write "60+" in the recording space for that skinfold.

The original examiner and recorder should complete an examination once it is started.

The examiner takes each measurement and says it to the recorder. The recorder repeats the number, records it in the proper space, and says the name of the next measurement. The examiner should keep the measuring instrument set until the recorder repeats the number. If the anthropometer becomes unset in any way before the measurement is read back, the measurement should be made again. On standing measurements the recorder should see that the examinee stands erect. For the standing height measurement the recorder should check the height photograph to be sure of the accuracy of the technician's reading.

The recorder is important in helping to ensure the accurate recording of the measurement while also helping the examiner position the examinee correctly. The recorder also assists the examiner by seeing that the steel tape is horizontal with proper tension when girths are measured. The recorder, having had the same training as the examiner, should recognize an error in measurement or in reading from the wrong scale. (The anthropometer has two scales, ascending and descending.) Any errors spotted by the recorder should be called to the examiner's attention and the mistake corrected.

Procedure for measuring examinees ages 8 years and over

Before starting the measurements, record on the control record the examiner number and the time the procedure begins. Record on the body measurement form the examiner and recorder numbers, as well as the age and sex of the examinee.

After finishing the measurements, record the time on the control record and complete the date, age, sex, height, and weight sections on the "Report of Findings to Physician" page of the chart.

1. *Height*—Have the examinee stand erectly with back and heels against the upright bar of the height scale ("Stand up tall" or "Stand up straight") with feet together and head in the Frankfort horizontal plane ("Look straight ahead"). Grasp the examinee under the mastoid processes and stretch gently upward.

While maintaining the examinee's head position with one hand, bring the horizontal bar down snugly to the examinee's head. Lock the bar in place.

Place one of the sample number labels next to the tape on the upright bar so the label can be read on the height measurement photograph.

Photograph the height measurement, being sure that the examinee's hair does not obscure the scale. Ask the examinee to step aside.

Process the film and stick the sample number label from the height scale on the photograph. Do not cover up the scale or the photographed sample number.

Read the standing height measurement from the photograph and record it on the body measurement form in four digits to the nearest millimeter (0.1 of 1 cm) from the metric scale. If there are fewer than four digits, fill in the blank spaces with zeroes as appropriate. For example, 99.0 should be 099.0. When the measurement is exactly at the half-way point between two millimeter marks, round up if the preceding whole number is odd; round down, if even.

2. *Weight*—Make sure that the electronic digital scale is in the kilogram mode. If it is not, press the LB/KG key on the keyboard face.

Make sure that the digital LED readout shows 000.00. If it does not, press the ZERO key on the keyboard scale to zero the scale.

Have the examinee stand on the center of the weight scale platform.

Insert the body measurement page in the slot of the scale's printer.

Press the PRINT key on the front of the printer to record on the body measurement page the time of day, the date, and the examinee's weight to the nearest twentieth of a kilogram.

Check to be sure that the printed weight is legible and is the same as the weight displayed on the LED.

Record the weight in kilograms on the body measurement form in the space provided. Always record the weight in five digits, filling in the blank spaces with zeroes as needed. For example, 44.5 should be entered as 044.50. The last digit should always be a zero or a five.

3. *Biacromial breadth*—Have the examinee stand facing away from you in the standard erect position with feet together and arms hanging freely at sides.

Place an anthropometer arm on each of the acromial processes.

Compress the soft tissue over the acromial processes as much as possible by applying pressure on the anthropometer arms near where they touch the body (not where they are attached to the anthropometer).

Measure the maximum breadth of the body between the acromial processes to the nearest 0.1 cm. Be sure that the anthropometer arms do not slip off the acromial processes. This is a bone-to-bone measurement taken over the examinee's gown.

4. *Biiliac crest breadth*—Have the examinee stand facing away from you in the standard erect position with feet together.

Locate the maximum lateral width of the body between the crests of the ilia. This maximum width is in the anterior superior aspect of the body.

Place an anthropometer arm on each iliac crest. You may need to hold the ends of the anthropometer arms in a slightly declining position.

Compress the soft tissue over the ilia as much as possible by applying pressure on the anthropometer arms near where they touch the body (not where they are attached to the anthropometer).

Measure the maximum breadth of the body between the iliac crests to the nearest 0.1 cm. Be sure that the anthropometer arms do not slip off the bony landmarks. This is a bone-to-bone measurement taken over the examinee's gown.

5. *Bitrochanteric breadth*—Have the examinee stand with feet together in the standard erect position.

Place the caliper arms on the protuberances of the greater femoral trochanters.

Compress the soft tissue over the trochanters as much as possible by applying pressure on the caliper arms near where they touch the body (not where the arms are attached to the anthropometer).

With the top section of the anthropometer measure to the nearest 0.1 cm the maximum breadth of the body at the level of the greater femoral trochanters. This is a bone-to-bone measurement taken over the examinee's gown.

6. *Elbow breadth*—Have the examinee stand with feet together in the standard erect position and extend right arm forward until it is perpendicular to body.

Have the examinee bend arm so the angle at the elbow forms 90° with fingers pointing up and the dorsal part of wrist toward you.

With the sliding calipers in the same plane as the axis of the upper arm, measure to the nearest 0.1 cm the greatest breadth across the elbow joint. This is a bone-to-bone measurement across the epicondyles of the humerus and is usually taken at an oblique angle because the inner condyle is lower than the outer condyle. Be careful that the calipers do not slide off the epicondyles.

7. *Midupper arm girth*—Have the examinee stand with feet together in the standard erect position, with right arm flexed 90° at the elbow.

Mark the lateral edge of the acromial process. Place the insertion tape along the posterior upper arm so that the same number appears on the tape at the acromial process of the scapula as at the olecranon process of the ulna. Mark the midpoint of the upper arm which is indicated by the zero point (black triangle) on the tape.

Have the recorder mark the examinee's arm at the level of the zero point on the tape. It is of paramount importance to take this measurement accurately because the midpoint of the arm is the level at which both the arm girth and triceps skinfold measurements are taken.

Have the examinee relax elbow so arm hangs freely at side.

Place the steel tape so it encircles the arm at the marked point and measure the circumference to the nearest 0.1 cm. The tape should rest firmly on the skin surface but should not compress the skin.

8. *Triceps skinfold*—Have the examinee stand with feet together in the standard erect position, relax shoulder, and let arm hang freely at side.

Mark a point on the right midtriceps in the same plane as the midhumeral point used for the upper arm girth and perpendicular to the olecranon process of the ulna.

Grasp a fold of skin and subcutaneous tissue firmly with thumb and forefinger approximately 1 cm above this level; draw it directly back from the body making sure that no muscle tissue is included in the fold. The crest of the fold should be parallel to the long axis of the arm.

Apply the calipers at the level of the point marked earlier and indented directly below the thumb and forefinger; measure the fold to the nearest 0.5 mm without releasing the fingers.

Take a second measurement; if the two disagree, continue taking measurements until you get two that agree to within 0.5 mm.

9. *Subscapular skinfold*—Have the examinee stand with feet together in the standard erect position and relax shoulders and arms.

Palpate the inferior angle of the scapula. Grasp a fold of skin and subcutaneous tissue directly above the angle firmly with the thumb and forefinger; draw it straight back from the body, making sure that no muscle tissue is included in the fold. The fold should parallel natural cleavage lines of the skin which are often lines about 45° from the horizontal extending medially upward.

Apply the calipers about 1 cm directly below the thumb and forefinger and measure the fold to the nearest 0.5 mm without releasing the fingers.

Take a second measurement; if the two disagree, continue taking measurements until two agree to within 0.5 mm.

10. *Iliac crest skinfold*—Have the examinee stand with his feet together in the standard erect position.

Palpate the right suprailiac crest and pull a fold of skin and subcutaneous tissue directly above the crest. The fold should follow natural cleavage lines of the skin which are usually at 45° from the horizontal extending medially downward.

Apply the calipers about 1 cm directly below the thumb and forefinger; measure to the nearest 0.5 mm the thickness of the fold taken over the right crest at the midaxillary line but perpendicular to it.

Take a second measurement; if the two disagree, continue taking measurements until two agree to within 0.5 mm.

11. *Maximal calf circumference*—Have the examinee sit on the measuring table facing the doorway with leg hanging loosely.

Place the steel tape on a line between the distal process of the femur and the distal process of the tibia; have the recorder make a vertical line along the edge of the tape at about the middle of the leg.

Encircle the calf of the leg with the steel tape at what appears to be its maximum circumference. Move the tape up and down the leg slightly to confirm that you have the maximum circumference. Have the recorder mark along the top edge of the tape a horizontal line that intersects the vertical line drawn previously.

Keeping the tape taut without compressing the skin, measure the circumference to the nearest 0.1 cm.

12. *Medial calf skinfold*—Have the examinee sit on the measuring table with leg hanging loosely.

Grasp a fold of skin and subcutaneous tissue about 1 cm above the intersection of the markings on the leg.

Place the skinfold calipers at the level of the horizontal line and indented directly below the thumb and forefinger; measure to the nearest 0.5 mm the thickness of the skinfold.

Take a second measurement; if the two disagree, continue taking measurements until two agree to within 0.5 mm.

13. *Handedness*—Ask the examinee whether he or she is right-handed or left-handed. Record the answer by checking the appropriate box.

14. *Sitting height*—Have the examinee sit as far back on the measuring table as possible so that the backs of the knee joints (popliteal fossae) are at the front edge of the table. Have examinee sit erectly with eyes straight ahead and the infraorbital meateal line parallel to the

table top (that is, eyes in the horizontal plane looking straight ahead). Check with the recorder on the examinee's position before making the measurement.

Grasp the examinee laterally under the mastoid processes and under the mandible. Lift the examinee gently to a maximal sitting height.

While maintaining the examinee's head position with one hand, bring the caliper arm down firmly against the midline of the examinee's head. You might have to compress some hairstyles.

Take the measurement to the nearest 0.1 cm with your eyes at the same level as the caliper arm. Do not make the reading at an angle. Short technicians should stand on the footstool available in the measuring room.

Procedure for measuring children under age 8 years

Before starting the measurements, record on the control record the examiner number and the time the procedure begins. Record on the body measurement form the examiner and recorder numbers, as well as the age and sex of the examinee.

After finishing the measurements, record the time on the control record; complete the date, age, sex, height, and weight sections on the "Report of Findings to Physician" page of the chart.

1. *Height* (2–7 years old)—Use the same procedure as that for older examinees.
2. *Weight*—Use the same procedure as that for older examinees.
3. *Biacromial breadth*—Stand the child on the footstool (placed in the center of the room) so that you can take the measurements with your eyes at about the same level as the caliper arms. Otherwise, use the same procedure as that for older examinees.
4. *Biiliac crest breadth*—Stand the child on the footstool (placed in the center of the room) so that you can take the measurements with your eyes at about the same level as the caliper arms. Otherwise, use the same procedure as that for older examinees.
5. *Bitrochanteric breadth*—Stand the child on the footstool (placed in the center of the room) so that you can take the measurements with your eyes at about the same level as the caliper arms. Otherwise, use the same procedure as that for older examinees.
6. *Elbow breadth*—Use the same procedure as that for older examinees except that the child may be either standing on the footstool or sitting.
7. *Midupper arm girth*—Stand the child on the footstool (placed in the center of the room) so that you can take the measurements with your eyes at about the same level as the caliper arms. Otherwise, use the same procedure as that for older examinees.
8. *Triceps skinfold*—Stand the child on the footstool (placed in the center of the room) so that you can take the measurements with your eyes at about the same level as the caliper arms. Otherwise, use the same procedure as that for older examinees.
9. *Subscapular skinfold*—Stand the child on the footstool (placed in the center of the room) so that you can take the measurements with your eyes at about the same level as the caliper arms. Otherwise, use the same procedure as that for older examinees.
10. *Iliac crest skinfold*—Stand the child on the footstool (placed in the center of the room) so that you can take the measurements with your eyes at about the same level as the caliper arms. Otherwise, use the same procedure as that for older examinees.
11. *Maximal calf circumference*—Use the same procedure as that for older examinees.
12. *Medial calf skinfold*—Use the same procedure as that for older examinees.
13. *Handedness*—If the child is old enough to respond accurately, ask the child whether he or she is right-handed or left-handed; record the child's answer by checking the appropriate box. Otherwise, question the child's parent or guardian to obtain the information.
14. *Sitting height* (2–7 years old)—Have the child sit erectly on the measuring table with eyes directed straight ahead (the eyes should be in a horizontal plane looking straight ahead). The child should sit as far back on the table as possible so that the backs of knee joints (popliteal fossae) are in contact with the front edge of the table. Check with the recorder on the child's position before making the measurement. Younger children need to be encouraged to sit up straight, and you might have to give support to a younger child. First, straighten out the child's back by placing your right hand over the upper part of the chest and your left hand over the lumbar area and pushing gently. Then, grasp the child laterally under the mastoid processes and under the mandible. Lift the child to a maximal sitting height. Be sure that the child's hands are placed in child's lap. This avoids the child's rendering you any assistance by using hands to elevate body.

After checking the child's position with the recorder and while maintaining head position with one hand, bring the caliper arm firmly against the midline of the examinee's head. You might have to compress some hairstyles.

Take the measurement to the nearest 0.1 cm with your eyes at the same level as the caliper arm.

15. *Chest circumference*

Erect (2–7 years old)—Have the child stand on the footstool in the standard erect position with feet together. Pass the steel tape around the chest at the level of the nipple line so that it is at a right angle to the

longitudinal axis of the body. Have the recorder see that the tape is against the child's body just below the angles of the scapula. Measure to the nearest 0.1 cm the chest circumference at midrespiration, with the examinee breathing normally, with arms relaxed at sides.

Supine (3 years and under)—Have the child lie supine on the infant measuring board. Put the tape around the chest at nipple level at a right angle to the longitudinal axis of the body. Take the measurement to the nearest 0.1 cm at normal midrespiration.

16. *Head circumference* (6 months–7 years)—Have the child either sitting or standing for this measurement.

Steady the child's head and place the steel tape firmly around the frontal bones (forehead) just above but not including the supraorbital ridges, passing the tape around the head just above the ears on each side, and laying it over the maximum occipital prominence at the back of the head.

Have the recorder hold the tape on the maximal occipital prominence once the tape has been positioned correctly.

Pull the tape firmly to compress the hair and underlying soft tissues.

Measure the head circumference to the nearest 0.1 cm.

17. *Recumbent length* (3 years and under)—Have the child lie on his or her back on the infant measuring board.

Find another technician to help take this measurement. One technician holds the child's head in the Frankfort plane (that is, eyes straight ahead; in this case, straight upward so that the plane they form is parallel to the movable footboard) and applies gentle traction to bring the head into contact with the fixed headboard. The second technician holds the child's legs by placing one hand firmly over the knees. The child's toes should point directly upward. Then, while applying downward pressure to the legs (to prevent the knees from flexing), the second technician brings the movable footboard to rest firmly against the child's heels. You may need a third person to help with restless infants so you can take measurements as quickly as possible and maintain accuracy.

Read the measurement to the nearest 0.1 cm from the digital counter on the measuring footboard.

18. *Crown-rump length* (3 years and under)—Have the child lie on his or her back on the infant measuring board with hips bent at a right angle.

Find another technician to help take this measurement. One technician holds the child's head in the Frankfort plane and applies gentle traction to bring the head into contact with the fixed headboard. The second technician supports the child's legs under the flexed knees and brings the movable footboard to rest against the child's buttocks with firm pressure.

Read the measurement to the nearest 0.1 cm from the digital counter on the measuring footboard.

Unusual occurrence form

The unusual occurrence form is used to describe the reasons why parts of the examination were not obtained or why they may have been done in a nonstandard way. For instance, the form should identify infants for whom data could not be obtained because of uncontrollable behavior, examinees for whom right-side measurements could not be taken, and all refusals. This form should include the sample numbers of all infants (under 2 years old) for whom height photographs were not taken. Conditions affecting the examination should also be listed here, for example: "SP pregnant" or "right side atrophy due to paralysis."

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