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Vital and Health Statistics

Series 3, Number 39

August 2016

Anthropometric Reference Data for Children and Adults: United States, 2011–2014

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

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Suggested citation

Fryar CD, Gu Q, Ogden CL, Flegal KM. Anthropometric reference data for children and adults: United States, 2011–2014. National Center for Health Statistics. Vital Health Stat 3(39). 2016.

Library of Congress Catalog Number 614.5'939—dc23

For sale by the U.S. Government Printing Office
Superintendent of Documents
Mail Stop: SSOP
Washington, DC 20402–9328
Printed on acid-free paper.

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Data from the National Health and Nutrition Examination Survey

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

Hyattsville, Maryland
August 2016
DHHS Publication No. 2016–1604

National Center for Health Statistics

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Abstract

Objective

This report presents anthropometric reference data for the U.S. population in 2011–2014.

Methods

Body measurements were obtained from 19,151 participants in the 2011–2014 National Health and Nutrition Examination Survey (NHANES). Measurements included weight, height, recumbent length, circumferences, limb lengths, and sagittal abdominal diameter (SAD).

Results

Weighted population means, standard errors of the means, and selected percentiles of body measurement values are reported. Body measurement results are shown by sex and age, as well as race and Hispanic origin in adults.

Conclusions

These latest NHANES data show the distribution of weight, height, body mass index, circumferences, lengths, and SAD in the U.S. population.

Keywords: anthropometry • body measures • nutrition surveys • National Health and Nutrition Examination Survey

Anthropometric Reference Data for Children and Adults: United States, 2011–2014

by Cheryl D. Fryar, M.S.P.H.; Qiuping Gu, M.D.; Cynthia L. Ogden, Ph.D.; and Katherine M. Flegal, Ph.D., Division of Health and Nutrition Examination Surveys

Introduction

Anthropometry or human body measurements provide important indicators of nutritional status in children and adults (1). In children, measurements reflect general health status, dietary adequacy, and growth and development over time. In adults, body measurements are used to evaluate health and dietary status, disease risk, and body composition. This report presents anthropometric reference data for 2011–2014 for U.S. children and adults.

Methods

National Health and Nutrition Examination Surveys (NHANES) are conducted by the National Center for Health Statistics. NHANES data are the primary source of body measurement information for the U.S. population. Household interviews and health examinations are used to collect NHANES data. Health examinations are conducted in mobile examination centers (MECs). The MECs are staffed by full-time personnel, including health technicians who perform body measurements on survey participants following a standard protocol.

Surveys were conducted on a periodic basis from 1960 through 1994. NHANES became a continuous survey in 1999. Each of the continuous NHANES annual samples is nationally representative. For reasons that include disclosure and data reliability, public-use data files are released in 2-year cycles. A combined 4-year data set based on 2011–2012 and 2013–2014 data was used for this report to improve the stability and reliability of the statistical estimates (2–5). During 2011–2014, the overall examination response rate was 69%.

Sample Description

NHANES is a complex, multistage probability sample of the civilian noninstitutionalized U.S. population. The NHANES 2011–2014 sample included participants of all ages. Those aged 80 and over, Hispanic persons, non-Hispanic black persons, non-Hispanic Asian persons, and those with low income were oversampled to improve the precision of the statistical estimates for these groups (5). The oversampling of non-Hispanic Asian persons is new to the 2011–2014 data collection methodology. The analytic sample for this report was based on the 2011–2014 examined sample of 19,151 persons. Pregnant females were excluded from the tabulations of weight, body mass index (BMI), and circumference measurements.

The age and race and Hispanic-origin categories used for adults aged 20 and over were based on the survey sample domains (4). Age was categorized into three groups: 20–39, 40–59, and 60 and over. Race and Hispanic origin were reported for non-Hispanic white, non-Hispanic black, non-Hispanic Asian, all Hispanic, and Mexican-American persons. For participants under age 20, results are reported by single year of age, except for results for infants under age 1 year, which are reported by month of age.

Body Measures

The NHANES Anthropometry Procedures Manual describes the protocol, equipment, quality control, and measurement procedures in detail (6).

Weight was measured on all participants to the nearest 0.1 kilogram using a digital floor scale. Head circumference was measured on infants from birth through 6 months of age to the nearest 0.1 centimeter (cm) using a plastic head circumference measurement tape. Recumbent length was measured from birth through 47 months of age to the nearest 0.1 cm using a digital infantometer. Upper arm length and arm circumference were measured on participants starting at 2 months of age. Upper arm length was measured with a tape measure from the posterior border of the acromion process to the tip of the olecranon process; during the measurement, the upper arm length midpoint was marked. Midarm circumference was measured with a tape measure at the marked point.

Standing height or stature and waist circumference were measured to the nearest 0.1 cm on participants starting at age 2 years. Standing height was measured with a digital stadiometer. Waist circumference was measured with a tape measure at the uppermost lateral border of the hip crest (ilium).

In addition to these measurements, upper leg length and sagittal abdominal diameter (SAD) measurements were taken on participants aged 8 and over. Pregnant females and persons over 600 pounds were excluded from SAD measurements. Upper leg measurements were taken on seated participants; the distance from the inguinal crease to the distal end of the femur was measured. SAD measurements were taken on participants in a supine position; the external distance between the front of the abdomen and the small of the back at the iliac level line was measured.

Weight, recumbent length, and standing height values were recorded automatically. Other body measurement data were recorded using computer-assisted data entry. All results, except SAD, were based on a single body measurement examination. SAD data are based on an average of up to four measurement readings, although most participants had only two readings.

One index is reported: BMI, which was calculated as weight in kilograms divided by height in meters squared (kg/m^2).

Statistical Analysis

Data were weighted using NHANES 4-year calculated examination sample weights to produce national estimates. The NHANES examination sample weights incorporate the differential probabilities of selection and include adjustments for oversampling of selected populations, noncoverage, and nonresponse. Standard errors were estimated using SUDAAN by Taylor series linearization because of the complex sample design (7).

The reliability of the estimates produced for this report was evaluated. Estimates based on less than 12 degrees of freedom or with a relative standard error (RSE) greater than 30% were considered statistically unreliable (4). RSE is defined as the ratio of the standard error of the estimate divided by the estimate, multiplied by 100. No estimates in this report had RSEs greater than 30%. In Tables 1–32, estimates based on less than 12 degrees of freedom are identified with an asterisk (*). Estimates with standard errors that could not be calculated using SUDAAN because of small cell sizes were omitted from the tables and are identified with a dagger (†).

Results

A list of detailed tables based on body measurements and BMI is found in the text Table. Tables 1–32 contain the results from each measurement and BMI. Results are reported by sex and age group, and results for adults aged 20 and over are also presented by race and Hispanic origin. Results from previous surveys for most measurements have been reported for the National Health Examination Survey and NHANES conducted during 1960–2010 (8–21). A historical summary of published body measurement reference data is available in the Appendix.

Discussion

This report provides the most recent anthropometric reference data for U.S. children and adults. The SAD measurements provide the first national reference data across various demographic groups. NHANES anthropometric data have been used by researchers and policy makers for a variety of research and policy applications (22–29). NHANES will continue to collect anthropometric data and provide vital information to support national health programs and policy efforts.

Table. Detailed tables with body measurements or indices from the National Health and Nutrition Examination Survey, 2011–2014

Table number	Measurement/index (unit of measurement)	Age group and sex
1	Weight (kilograms)	Birth–19 years
2	Weight (pounds)	Birth–19 years
3	Weight (kilograms)	Females 20 years and over
4	Weight (pounds)	Females 20 years and over
5	Weight (kilograms)	Males 20 years and over
6	Weight (pounds)	Males 20 years and over
7	Standing height (centimeters)	Persons 2–19 years
8	Standing height (inches)	Persons 2–19 years
9	Standing height (centimeters)	Females 20 years and over
10	Standing height (inches)	Females 20 years and over
11	Standing height (centimeters)	Males 20 years and over
12	Standing height (inches)	Males 20 years and over
13	Body mass index	Persons 2–19 years
14	Body mass index	Females 20 years and over
15	Body mass index	Males 20 years and over
16	Head circumference (centimeters)	Birth through 6 months
17	Recumbent length (centimeters)	Birth through 47 months
18	Waist circumference (centimeters)	Persons 2–19 years
19	Waist circumference (centimeters)	Females 20 years and over
20	Waist circumference (centimeters)	Males 20 years and over
21	Sagittal abdominal diameter (centimeters)	Persons 8–19 years
22	Sagittal abdominal diameter (centimeters)	Females 20 years and over
23	Sagittal abdominal diameter (centimeters)	Males 20 years and over
24	Midarm circumference (centimeters)	Persons 2 months–19 years
25	Midarm circumference (centimeters)	Females 20 years and over
26	Midarm circumference (centimeters)	Males 20 years and over
27	Upper arm length (centimeters)	Persons 2 months–19 years
28	Upper arm length (centimeters)	Females 20 years and over
29	Upper arm length (centimeters)	Males 20 years and over
30	Upper leg length (centimeters)	Persons 8–19 years
31	Upper leg length (centimeters)	Females 20 years and over
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References

1. Gibson RS. Principles of nutritional assessment. Second edition. Oxford University Press. 2005.
2. National Center for Health Statistics. National Health and Nutrition Examination Survey, 2011–2012 data documentation, codebook, and frequencies: Body measures. 2015. Available from: https://wwwn.cdc.gov/Nchs/Nhanes/2011-2012/BMX_G.htm.
3. National Center for Health Statistics. National Health and Nutrition Examination Survey, 2013–2014 data documentation, codebook, and frequencies: Body measures. 2015. Available from: https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/BMX_H.htm.
4. CDC. National Center for Health Statistics. National Health and Nutrition Examination Survey: Analytic guidelines, 2011–2012. 2013. Available from: http://www.cdc.gov/nchs/data/nhanes/analytic_guidelines_11_12.pdf.
5. Johnson CL, Dohrmann SM, Burt VL, Mohadjer LK. National Health and Nutrition Examination Survey: Sample design, 2011–2014. National Center for Health Statistics. Vital Health Stat 2(162). 2014. Available from: http://www.cdc.gov/nchs/data/series/sr_02/sr02_162.pdf.
6. CDC. National Center for Health Statistics. National Health and Nutrition Examination Survey (NHANES) anthropometry procedures manual. 2013. Available from: http://www.cdc.gov/nchs/data/nhanes/nhanes_13_14/2013_Anthropometry.pdf.
7. Wolter KM. Introduction to variance estimation. 2nd ed. New York, NY: Springer. 2007.
8. Stoudt HW, Damon A, McFarland R, Roberts J. Weight, height, and selected body dimensions of adults. National Center for Health Statistics. Vital Health Stat 11(8). 1965. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_008.pdf.
9. Stoudt HW, Damon A, McFarland RA, Roberts J. Skinfolds, body girths, biacromial diameter, and selected anthropometric indices of adults: United States, 1960–1962. National Center for Health Statistics. Vital Health Stat 11(35). 1970. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_035acc.pdf.
10. Roberts J. Weight by height and age of adults: United States, 1960–1962. National Center for Health Statistics. Vital Health Stat 11(14). 1966. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_014acc.pdf.
11. Malina RM, Hamill PVV, Lemeshow S. Selected body measurements of children 6–11 years: United States. National Center for Health Statistics. Vital Health Stat 11(123). 1973. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_123acc.pdf.
12. Hamill PVV, Johnston FE, Lemeshow S. Height and weight of youths 12–17 years: United States. National Center for Health Statistics. Vital Health Stat 11(124). 1973. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_124.pdf.
13. Abraham S, Johnson CL, Najjar MF. Weight and height of adults 18–74 years of age: United States, 1971–74. National Center for Health Statistics. Vital Health Stat 11(211). 1979. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_211.pdf.
14. Johnson CL, Fulwood R, Abraham S, Bryner JD. Basic data on anthropometric measurements and angular measurements of the hip and knee joints for selected age groups 1–74 years of age: United States, 1971–1975. National Center for Health Statistics. Vital Health Stat 11(219). 1981. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_219.pdf.
15. Najjar MF, Rowland M. Anthropometric reference data and prevalence of overweight: United States, 1976–80. National Center for Health Statistics. Vital Health Stat 11(238). 1987. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_238.pdf.
16. Najjar MF, Kuczmarski RJ. Anthropometric data and prevalence of overweight for Hispanics: 1982–84. National Center for Health Statistics. Vital Health Stat 11(239). 1989. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_239.pdf.

17. McDowell MA, Fryar CD, Ogden CL. Anthropometric reference data for children and adults: United States, 1988–1994. National Center for Health Statistics. Vital Health Stat 11(249). 2009. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_249.pdf.
18. Ogden CL, Fryar CD, Carroll MD, Flegal KM. Mean body weight, height, and body mass index, United States 1960–2002. Advance data from vital and health statistics; no 347. Hyattsville, MD: National Center for Health Statistics. 2004. Available from: http://www.cdc.gov/nchs/data/ad/ad347.pdf.
19. McDowell MA, Fryar CD, Hirsch R, Ogden CL. Anthropometric reference data for children and adults: U.S. population, 1999–2002. Advance data from vital and health statistics; no 361. Hyattsville, MD: National Center for Health Statistics. 2005. Available from: http://www.cdc.gov/nchs/data/ad/ad361.pdf.
20. McDowell MA, Fryar CD, Ogden CL, Flegal KM. Anthropometric reference data for children and adults: United States, 2003–2006. National health statistics reports; no 10. Hyattsville, MD: National Center for Health Statistics. 2008. Available from: http://www.cdc.gov/nchs/data/nhsr/nhsr010.pdf.
21. Fryar CD, Gu Q, Ogden CL. Anthropometric reference data for children and adults: United States, 2007–2010. National Center for Health Statistics. Vital Health Stat 11(252). 2012. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_252.pdf.
22. Flegal KM, Kruszon-Moran D, Carroll MD, Fryar CD, Ogden CL. Trends in obesity among adults in the United States, 2005 to 2014. JAMA 315(21):2284–91. 2016.
23. Ogden CL, Carroll MD, Lawman HG, Fryar CD, Kruszon-Moran D, Kit BK, Flegal KM. Trends in obesity prevalence among children and adolescents in the United States, 1988–1994 through 2013–2014. JAMA 315(21):2292–9. 2016.
24. White House Task Force on Childhood Obesity report to the President. Solving the problem of childhood obesity within a generation. 2010. Available from: http://www.letsmove.gov/sites/letsmove.gov/files/TaskForce_on_Childhood_Obesity_May2010_FullReport.pdf.
25. Ostchega Y, Hughes JP, Zhang G, Nwankwo T, Chiappa MM. Mean mid-arm circumference and blood pressure cuff sizes for U.S. adults: National Health and Nutrition Examination Survey, 1999–2010. Blood Press Monit 18(3):138–43. 2013.
26. Ostchega Y, Hughes JP, Prineas RJ, Zhang G, Nwankwo T, Chiappa MM. Mid-arm circumference and recommended blood pressure cuffs for children and adolescents aged between 3 and 19 years: Data from the National Health and Nutrition Examination Survey, 1999–2010. Blood Press Monit 19(1):26–31. 2014.
27. Consumer Product Safety Commission. Human factors staff recommendation for anthropometry project. 1998. Available from: http://www.cpsc.gov/library/foia/foia98/os/antrpmtr.pdf.
28. U.S. Department of Transportation. Advisory circular: Aircraft weight and balance control. Federal Aviation Administration. 2004.
29. Department of Homeland Security. Passenger weight and inspected vessel stability requirements; Final rule. Fed Regist 75(239):78064. 2010.

Table 1. Weight in kilograms for children and adolescents from birth through age 19 years and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Kilograms										
Birth–2 months	75	5.4	0.10	4.0	4.3	4.4	4.7	5.3	5.9	6.3	6.5	6.7
3–5 months	90	7.3	0.12	5.8	6.0	6.2	6.5	7.2	8.0	8.2	8.7	8.9
6–8 months	103	8.5	0.12	6.9	7.2	7.4	7.7	8.4	9.2	9.6	9.7	10.1
9–11 months	97	9.7	0.16	7.6	8.0	8.3	8.7	9.5	10.6	11.2	11.4	11.8
1 year	240	11.4	0.10	9.3	9.7	10.1	10.4	11.3	12.0	13.0	13.2	13.9
2 years	258	14.2	0.14	11.5	11.9	12.4	13.0	14.0	15.0	16.0	16.6	17.5
3 years	234	16.0	0.16	13.3	13.8	14.2	14.7	15.7	16.9	18.1	18.3	19.1
4 years	230	18.5	0.18	14.6	15.3	15.6	16.4	18.1	19.9	20.7	21.6	23.9
5 years	195	21.2	0.39	16.9	17.5	18.2	18.8	20.1	23.1	24.3	25.4	29.1
6 years	247	23.9	0.39	18.3	19.1	20.1	21.0	23.1	25.8	27.4	28.8	32.5
7 years	231	28.1	0.52	20.4	21.7	21.9	23.3	26.0	30.1	33.7	38.9	42.5
8 years	228	31.5	0.58	21.7	23.0	24.1	25.9	29.7	35.0	38.0	40.0	46.4
9 years	218	33.8	0.69	23.3	25.1	25.9	28.2	31.8	36.2	42.0	46.2	50.4
10 years	207	40.3	1.25	26.6	28.8	30.8	32.1	36.5	45.8	50.5	54.1	62.8
11 years	186	48.5	1.39	30.9	33.3	35.4	38.0	45.8	55.6	63.6	71.4	76.1
12 years	181	50.6	1.44	33.4	36.0	37.3	41.2	47.6	54.9	64.1	70.2	79.8
13 years	175	60.7	1.64	39.8	41.8	43.6	48.6	56.7	67.7	75.3	83.9	93.9
14 years	184	65.9	1.83	43.9	47.5	51.4	53.9	61.4	74.0	84.2	89.9	101.4
15 years	156	71.3	1.91	47.2	51.6	53.6	57.7	65.5	82.6	84.8	94.2	110.3
16 years	178	74.4	1.21	52.6	55.7	57.5	61.3	68.7	84.2	90.2	96.1	110.3
17 years	147	75.1	2.08	52.4	56.6	59.0	61.7	71.1	80.7	91.5	99.6	114.2
18 years	160	81.4	3.22	53.9	57.8	60.0	65.9	76.4	87.8	100.3	107.8	†
19 years	144	78.9	2.24	54.5	55.7	59.6	63.9	73.7	87.3	96.3	113.1	†
Female												
Birth–2 months	72	4.8	0.08	3.7	3.9	4.0	4.3	4.7	5.1	5.4	5.8	†
3–5 months	104	6.8	0.12	5.1	5.4	5.6	6.1	6.7	7.4	7.8	7.9	8.2
6–8 months	91	8.0	0.12	6.2	6.7	6.8	7.3	7.8	8.5	8.8	9.2	†
9–11 months	104	9.3	0.16	7.1	7.7	8.0	8.3	9.1	10.1	10.5	10.6	11.5
1 year	224	11.2	0.14	8.5	9.1	9.5	9.9	11.1	12.2	12.8	13.3	13.9
2 years	293	13.3	0.12	10.7	11.2	11.4	11.9	13.1	14.3	15.0	15.4	16.4
3 years	201	15.7	0.22	12.8	13.1	13.6	14.2	15.1	16.5	17.5	18.7	19.4
4 years	206	18.3	0.28	13.9	14.4	14.9	15.9	17.9	19.8	20.6	21.4	25.4
5 years	179	20.4	0.34	15.3	16.0	16.6	17.9	19.9	21.8	23.9	24.6	27.8
6 years	216	23.8	0.48	17.3	17.8	18.7	20.1	22.2	26.5	29.4	30.8	33.4
7 years	211	26.6	0.63	19.2	19.9	20.7	21.8	24.5	29.5	33.6	36.4	40.7
8 years	197	31.7	0.62	22.6	23.3	23.8	25.4	28.7	35.4	39.1	43.0	46.3
9 years	206	37.5	0.86	24.9	26.6	27.2	29.2	34.2	42.2	48.2	51.2	58.7
10 years	187	41.3	1.27	25.6	27.7	29.6	33.0	38.7	47.3	51.9	57.3	63.0
11 years	230	47.4	1.17	30.0	33.3	34.6	37.8	44.0	54.1	59.5	64.8	75.8
12 years	166	55.8	1.64	34.6	37.9	40.1	43.2	50.9	65.7	72.4	77.7	90.7
13 years	160	55.5	1.47	38.6	41.0	43.4	45.4	51.4	61.3	71.0	77.4	78.1
14 years	169	59.6	1.52	42.5	45.1	47.2	49.9	53.8	66.2	74.9	81.4	85.2
15 years	150	64.3	2.50	43.7	47.1	49.4	52.3	58.1	72.1	82.1	88.6	†
16 years	187	65.0	2.60	45.8	46.9	48.9	50.9	60.0	70.3	83.8	95.3	†
17 years	139	67.4	1.86	47.1	50.4	51.4	53.6	60.7	77.5	85.7	90.5	108.7
18 years	154	67.2	2.59	45.0	47.8	51.3	54.3	62.1	72.7	81.9	91.2	†
19 years	152	68.5	2.16	44.2	46.0	49.7	54.2	62.6	79.0	85.5	100.0	113.3

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

NOTE: Data exclude pregnant females.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 2. Weight in pounds for children and adolescents from birth through age 19 years and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Pounds										
Birth–2 months	75	11.8	0.22	8.7	9.5	9.7	10.3	11.7	12.9	14.0	14.4	14.8
3–5 months	90	16.1	0.27	12.8	13.2	13.7	14.3	16.0	17.7	18.1	19.1	19.5
6–8 months	103	18.7	0.27	15.2	15.8	16.3	16.9	18.5	20.2	21.1	21.4	22.2
9–11 months	97	21.5	0.36	16.9	17.7	18.3	19.2	21.0	23.3	24.8	25.2	26.0
1 year	240	25.2	0.22	20.4	21.3	22.3	23.0	24.9	26.5	28.7	29.2	30.7
2 years	258	31.3	0.30	25.3	26.2	27.3	28.6	30.8	33.0	35.2	36.6	38.7
3 years	234	35.3	0.34	29.4	30.3	31.2	32.4	34.6	37.3	39.9	40.3	42.2
4 years	230	40.8	0.39	32.1	33.8	34.4	36.1	39.8	43.9	45.6	47.6	52.8
5 years	195	46.6	0.87	37.2	38.6	40.1	41.5	44.4	50.9	53.6	56.0	64.2
6 years	247	52.8	0.85	40.3	42.1	44.3	46.3	50.8	56.8	60.5	63.4	71.7
7 years	231	61.9	1.15	45.0	47.9	48.3	51.3	57.4	66.4	74.4	85.8	93.6
8 years	228	69.4	1.27	47.8	50.7	53.2	57.2	65.5	77.2	83.7	88.3	102.3
9 years	218	74.4	1.52	51.4	55.3	57.1	62.1	70.2	79.9	92.6	101.9	111.1
10 years	207	88.7	2.76	58.6	63.4	67.9	70.8	80.5	100.9	111.4	119.3	138.5
11 years	186	107.0	3.07	68.2	73.4	78.0	83.8	100.9	122.7	140.1	157.4	167.8
12 years	181	111.6	3.17	73.6	79.3	82.2	90.9	105.0	121.1	141.3	154.7	175.9
13 years	175	133.9	3.61	87.8	92.1	96.1	107.1	125.1	149.2	166.0	184.9	207.0
14 years	184	145.2	4.03	96.7	104.7	113.3	118.9	135.4	163.1	185.5	198.1	223.6
15 years	156	157.3	4.20	104.0	113.7	118.1	127.3	144.5	182.1	186.9	207.7	243.2
16 years	178	164.1	2.67	116.0	122.7	126.7	135.1	151.4	185.7	198.9	211.8	243.2
17 years	147	165.5	4.58	115.5	124.9	130.0	136.1	156.8	177.8	201.7	219.6	251.7
18 years	160	179.4	7.09	118.9	127.4	132.3	145.3	168.5	193.6	221.1	237.6	†
19 years	144	174.0	4.95	120.2	122.8	131.3	140.8	162.5	192.5	212.3	249.3	†
Female												
Birth–2 months	72	10.6	0.18	8.2	8.6	8.9	9.5	10.4	11.2	11.9	12.7	†
3–5 months	104	14.9	0.26	11.3	11.9	12.3	13.4	14.7	16.4	17.2	17.4	18.1
6–8 months	91	17.7	0.26	13.6	14.7	14.9	16.1	17.2	18.8	19.5	20.3	†
9–11 months	104	20.4	0.36	15.6	17.0	17.5	18.4	20.1	22.3	23.1	23.3	25.3
1 year	224	24.6	0.30	18.7	20.0	20.9	21.7	24.4	26.9	28.3	29.3	30.6
2 years	293	29.3	0.26	23.6	24.7	25.0	26.3	28.8	31.5	33.1	34.0	36.0
3 years	201	34.5	0.49	28.1	28.8	29.9	31.3	33.4	36.3	38.6	41.2	42.8
4 years	206	40.3	0.62	30.7	31.7	32.8	35.0	39.5	43.6	45.3	47.2	56.0
5 years	179	45.0	0.74	33.7	35.2	36.6	39.5	43.8	48.0	52.6	54.3	61.3
6 years	216	52.4	1.05	38.2	39.2	41.1	44.4	49.0	58.4	64.8	67.8	73.7
7 years	211	58.7	1.38	42.4	43.8	45.6	48.0	53.9	64.9	74.1	80.2	89.7
8 years	197	69.9	1.37	49.7	51.4	52.5	56.0	63.3	78.1	86.1	94.8	102.0
9 years	206	82.7	1.90	54.9	58.6	59.9	64.4	75.5	93.0	106.2	112.9	129.4
10 years	187	90.9	2.80	56.5	61.1	65.3	72.8	85.3	104.2	114.4	126.3	139.0
11 years	230	104.5	2.58	66.2	73.4	76.4	83.4	97.0	119.2	131.1	142.8	167.0
12 years	166	122.9	3.61	76.3	83.6	88.5	95.2	112.2	144.8	159.5	171.3	199.9
13 years	160	122.4	3.25	85.1	90.3	95.7	100.1	113.2	135.2	156.6	170.7	172.3
14 years	169	131.4	3.35	93.7	99.5	104.1	109.9	118.5	145.9	165.1	179.4	187.7
15 years	150	141.7	5.50	96.3	103.8	108.8	115.2	128.1	158.9	181.0	195.4	†
16 years	187	143.3	5.73	100.9	103.5	107.8	112.1	132.3	155.0	184.6	210.1	†
17 years	139	148.5	4.11	103.8	111.2	113.2	118.1	133.8	170.9	189.0	199.6	239.7
18 years	154	148.2	5.72	99.1	105.3	113.1	119.6	137.0	160.2	180.5	201.0	†
19 years	152	150.9	4.77	97.5	101.4	109.6	119.6	137.9	174.1	188.5	220.5	249.9

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

NOTE: Data exclude pregnant females.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 3. Weight in kilograms for females aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Kilograms										
20 years and over	5,425	76.4	0.42	50.1	54.3	57.5	61.7	72.1	86.7	96.2	104.0	116.5
20–29 years	853	73.4	0.85	48.6	51.7	54.3	58.4	67.9	83.7	96.5	103.7	115.8
30–39 years	915	78.4	0.87	52.1	56.3	58.4	62.5	72.8	88.9	98.9	107.8	122.1
40–49 years	979	78.5	1.00	52.5	56.6	59.3	63.0	74.4	89.3	98.8	107.6	118.5
50–59 years	923	79.1	1.05	52.3	56.6	58.6	64.0	75.9	89.5	99.5	108.6	123.1
60–69 years	889	76.6	0.90	49.0	55.6	58.8	63.7	74.6	86.7	93.8	102.0	111.4
70–79 years	527	75.2	0.94	49.1	54.5	58.1	62.9	71.9	85.5	93.3	98.2	108.0
80 years and over	339	64.4	0.74	44.0	47.1	50.2	55.2	64.0	72.8	78.2	81.8	86.5
Non-Hispanic white												
20 years and over	2,157	76.4	0.54	50.9	55.4	57.9	62.3	72.0	86.3	94.9	102.7	116.2
20–39 years	649	76.2	0.86	51.1	54.3	57.2	60.8	70.7	85.7	97.5	104.7	116.4
40–59 years	686	78.7	0.96	53.5	57.6	59.6	63.9	75.4	88.6	98.8	107.7	120.2
60 years and over	822	73.9	0.83	47.9	53.1	57.1	61.8	71.2	83.2	91.2	97.6	107.2
Non-Hispanic black												
20 years and over	1,264	86.3	0.69	54.9	59.7	63.7	69.9	83.1	98.8	109.0	116.5	128.7
20–39 years	380	86.2	1.25	52.3	58.8	62.1	68.5	83.1	99.3	110.4	119.4	129.2
40–59 years	481	89.1	1.12	58.3	63.5	67.3	72.2	85.0	101.4	111.7	117.8	130.0
60 years and over	403	81.6	1.08	50.3	57.2	61.1	66.8	79.2	94.7	102.8	106.6	118.3
Non-Hispanic Asian												
20 years and over	691	59.6	0.58	45.3	47.4	48.9	51.3	57.6	65.1	71.0	74.5	80.8
20–39 years	258	58.3	0.71	45.4	47.3	48.4	50.1	55.5	62.4	71.1	73.1	79.1
40–59 years	267	61.8	0.91	46.1	48.9	50.0	52.6	59.1	68.4	73.8	77.6	84.6
60 years and over	166	58.2	0.88	43.2	46.2	48.1	51.1	58.7	64.3	67.8	69.5	72.2
Hispanic[2]												
20 years and over	1,166	74.7	0.63	51.3	55.0	56.9	61.5	71.4	84.4	93.3	99.4	109.3
20–39 years	408	74.2	1.21	50.9	54.8	56.7	61.1	69.4	82.8	93.7	100.1	111.4
40–59 years	417	76.7	0.96	53.0	55.7	57.9	62.9	74.2	87.0	95.2	100.6	109.4
60 years and over	341	71.8	0.80	48.3	51.9	55.5	60.1	69.9	81.6	88.5	92.9	99.7
Mexican American												
20 years and over	611	76.0	0.84	51.9	55.6	58.0	62.4	72.5	85.9	94.6	100.7	111.2
20–39 years	238	75.0	1.56	51.8	55.7	57.6	61.5	70.5	82.9	93.9	102.5	114.5
40–59 years	220	78.5	1.13	54.5	56.7	59.9	64.3	76.7	89.1	96.7	101.6	110.2
60 years and over	153	*73.4	1.10	*47.8	*51.2	*54.4	*62.6	*70.4	*85.4	*91.2	*94.9	*102.5

* Estimate does not meet standards of reliability or precision based on less than 12 degrees of freedom.

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

NOTE: Data exclude pregnant females.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 4. Weight in pounds for females aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Pounds										
20 years and over	5,425	168.5	0.92	110.5	119.8	126.8	136.0	159.1	191.1	212.2	229.3	256.8
20–29 years	853	161.8	1.88	107.2	113.9	119.7	128.8	149.8	184.6	212.8	228.7	255.2
30–39 years	915	172.9	1.92	114.9	124.0	128.7	137.7	160.5	195.9	218.1	237.7	269.2
40–49 years	979	173.1	2.21	115.6	124.8	130.7	138.8	164.0	196.8	217.7	237.2	261.3
50–59 years	923	174.4	2.31	115.2	124.9	129.2	141.0	167.4	197.2	219.4	239.4	271.3
60–69 years	889	168.8	1.98	107.9	122.5	129.6	140.3	164.4	191.2	206.8	224.8	245.6
70–79 years	527	165.8	2.08	108.2	120.2	128.1	138.6	158.5	188.5	205.8	216.5	238.2
80 years and over	339	141.9	1.64	96.9	103.8	110.7	121.7	141.0	160.6	172.4	180.4	190.6
Non-Hispanic white												
20 years and over	2,157	168.4	1.19	112.2	122.2	127.7	137.4	158.7	190.3	209.1	226.5	256.1
20–39 years	649	167.9	1.90	112.6	119.8	126.1	134.0	155.9	189.0	215.0	230.8	256.7
40–59 years	686	173.4	2.12	118.0	127.0	131.3	140.9	166.1	195.4	217.8	237.5	265.0
60 years and over	822	162.9	1.83	105.7	117.0	125.9	136.2	157.0	183.4	201.1	215.3	236.2
Non-Hispanic black												
20 years and over	1,264	190.2	1.52	121.0	131.6	140.4	154.0	183.1	217.8	240.3	256.8	283.7
20–39 years	380	190.0	2.76	115.2	129.6	137.0	151.0	183.1	219.0	243.4	263.3	284.8
40–59 years	481	196.5	2.47	128.6	140.0	148.4	159.2	187.3	223.5	246.2	259.6	286.5
60 years and over	403	179.9	2.39	111.0	126.0	134.8	147.2	174.7	208.9	226.6	235.1	260.7
Non-Hispanic Asian												
20 years and over	691	131.4	1.28	99.8	104.6	107.8	113.0	127.0	143.6	156.5	164.2	178.2
20–39 years	258	128.6	1.56	100.1	104.2	106.6	110.5	122.4	137.5	156.7	161.0	174.3
40–59 years	267	136.3	2.01	101.6	107.8	110.2	115.9	130.4	150.8	162.7	171.2	186.5
60 years and over	166	128.2	1.93	95.3	101.9	106.0	112.6	129.3	141.7	149.4	153.3	159.1
Hispanic[2]												
20 years and over	1,166	164.7	1.39	113.1	121.3	125.4	135.5	157.4	186.2	205.7	219.2	241.0
20–39 years	408	163.5	2.66	112.3	120.7	125.0	134.8	152.9	182.5	206.6	220.7	245.5
40–59 years	417	169.1	2.11	116.8	122.7	127.7	138.6	163.6	191.8	209.8	221.7	241.1
60 years and over	341	158.3	1.76	106.4	114.4	122.5	132.5	154.0	179.9	195.0	204.8	219.7
Mexican American												
20 years and over	611	167.6	1.86	114.4	122.6	127.8	137.5	159.8	189.4	208.6	222.0	245.1
20–39 years	238	165.3	3.45	114.1	122.7	127.0	135.7	155.5	182.7	207.1	226.0	252.5
40–59 years	220	173.0	2.49	120.2	124.9	132.2	141.8	169.0	196.5	213.1	223.9	243.0
60 years and over	153	*161.9	2.42	*105.4	*113.0	*120.0	*138.0	*155.2	*188.3	*201.0	*209.3	*225.9

* Estimate does not meet standards of reliability or precision based on less than 12 degrees of freedom.

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

NOTE: Data exclude pregnant females.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 5. Weight in kilograms for males aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Kilograms										
20 years and over	5,236	88.8	0.43	62.0	66.3	69.9	74.9	85.9	99.2	107.4	113.3	124.9
20–29 years	936	84.7	1.18	57.3	62.4	65.3	69.4	80.7	94.6	105.3	112.1	127.4
30–39 years	914	90.2	0.78	63.6	68.1	71.7	76.2	86.6	100.3	110.2	117.7	127.9
40–49 years	872	91.5	0.73	66.3	70.9	73.9	77.9	89.1	100.9	107.6	113.0	126.6
50–59 years	854	90.5	0.92	63.5	69.0	72.6	77.2	88.8	100.8	107.4	113.6	126.7
60–69 years	874	90.6	1.37	62.5	66.7	70.0	76.2	88.6	101.2	110.8	115.8	126.6
70–79 years	486	85.8	0.92	61.9	66.3	69.2	75.6	83.3	96.1	103.0	107.2	114.1
80 years and over	300	79.2	0.86	56.8	60.1	64.1	69.9	77.6	88.2	94.0	98.0	105.9
Non-Hispanic white												
20 years and over	2,099	90.2	0.56	63.9	68.8	72.1	76.7	87.5	100.4	107.9	113.6	124.8
20–39 years	715	87.9	1.24	62.0	65.7	68.8	73.3	83.2	99.1	107.8	115.7	128.0
40–59 years	655	92.8	0.94	68.2	73.1	75.1	79.7	90.4	102.3	107.9	113.6	127.6
60 years and over	729	89.2	0.96	62.7	67.6	71.3	76.6	86.3	99.5	108.0	113.0	120.1
Non-Hispanic black												
20 years and over	1,222	90.4	0.73	59.0	64.1	67.8	73.2	86.9	103.1	112.0	119.9	133.9
20–39 years	404	89.7	1.39	56.8	62.9	65.9	71.6	85.7	103.4	112.9	119.8	137.3
40–59 years	396	92.9	1.20	59.4	66.7	70.2	77.0	89.2	105.0	114.2	122.6	135.8
60 years and over	422	86.8	1.30	60.1	64.1	67.0	72.0	84.2	97.3	106.0	114.2	123.3
Non-Hispanic Asian												
20 years and over	665	73.0	0.49	53.7	58.6	60.6	64.5	71.3	79.8	85.6	89.4	97.9
20–39 years	260	74.9	0.98	53.1	58.8	60.6	63.9	72.4	82.4	89.7	95.9	100.8
40–59 years	247	73.2	0.56	55.3	59.7	62.1	66.5	72.1	81.0	83.1	87.1	90.2
60 years and over	158	68.5	0.86	48.5	56.5	58.1	61.5	68.1	74.0	77.7	80.1	†
Hispanic[2]												
20 years and over	1,089	86.1	0.90	60.9	64.9	68.3	73.3	83.8	94.9	103.1	108.9	120.2
20–39 years	385	87.2	1.30	60.5	64.6	67.7	72.9	84.4	97.1	106.4	110.6	124.2
40–59 years	381	86.2	1.11	62.2	66.8	70.6	75.3	84.7	94.0	100.5	105.3	116.4
60 years and over	323	81.3	1.05	59.7	63.5	65.0	69.6	79.6	89.9	96.1	102.7	110.6
Mexican American												
20 years and over	628	87.1	0.93	62.2	65.7	69.8	73.8	84.8	95.8	104.9	109.8	122.7
20–39 years	233	88.2	1.54	62.3	65.2	69.4	73.5	86.6	98.2	107.6	111.5	129.0
40–59 years	228	86.4	1.37	61.2	66.1	70.8	75.8	84.7	94.1	100.7	107.4	116.6
60 years and over	167	84.0	1.31	59.8	65.0	67.4	72.8	81.0	92.7	99.2	106.1	111.5

† Estimate not shown because the standard error could not be calculated due to small sample size.
[1]Includes persons of other races.
[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 6. Weight in pounds for males aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Pounds										
20 years and over	5,236	195.7	0.94	136.7	146.2	154.2	165.1	189.3	218.8	236.7	249.9	275.4
20–29 years	936	186.8	2.60	126.2	137.6	143.9	152.9	177.8	208.5	232.1	247.2	280.8
30–39 years	914	198.8	1.73	140.2	150.2	158.2	168.1	190.8	221.2	242.8	259.6	281.9
40–49 years	872	201.7	1.60	146.2	156.3	162.9	171.7	196.4	222.5	237.2	249.0	279.2
50–59 years	854	199.5	2.03	140.0	152.0	160.0	170.2	195.9	222.3	236.9	250.4	279.4
60–69 years	874	199.7	3.02	137.9	147.0	154.3	168.0	195.3	223.1	244.2	255.3	279.2
70–79 years	486	189.3	2.03	136.5	146.2	152.6	166.6	183.6	212.0	227.0	236.3	251.5
80 years and over	300	174.6	1.90	125.2	132.6	141.4	154.2	171.1	194.5	207.1	216.1	233.5
Non-Hispanic white												
20 years and over	2,099	198.8	1.23	140.9	151.6	158.9	169.1	192.9	221.4	237.9	250.5	275.2
20–39 years	715	193.8	2.72	136.6	144.9	151.6	161.7	183.5	218.5	237.7	255.0	282.3
40–59 years	655	204.6	2.07	150.4	161.2	165.5	175.7	199.3	225.5	237.8	250.4	281.3
60 years and over	729	196.5	2.11	138.2	149.0	157.2	168.9	190.2	219.3	238.1	249.2	264.8
Non-Hispanic black												
20 years and over	1,222	199.3	1.61	130.0	141.4	149.4	161.4	191.6	227.2	247.0	264.4	295.2
20–39 years	404	197.7	3.07	125.2	138.6	145.4	157.9	189.0	228.0	248.9	264.2	302.6
40–59 years	396	204.8	2.64	130.9	147.0	154.8	169.8	196.6	231.4	251.8	270.3	299.5
60 years and over	422	191.4	2.86	132.6	141.2	147.8	158.8	185.5	214.4	233.7	251.9	271.8
Non-Hispanic Asian												
20 years and over	665	161.0	1.09	118.5	129.1	133.6	142.1	157.2	175.9	188.8	197.0	215.8
20–39 years	260	165.0	2.15	117.1	129.6	133.5	140.9	159.6	181.6	197.8	211.5	222.2
40–59 years	247	161.3	1.23	122.0	131.7	137.0	146.6	158.9	178.6	183.2	192.0	198.8
60 years and over	158	151.1	1.89	106.8	124.6	128.0	135.7	150.1	163.2	171.2	176.6	†
Hispanic[2]												
20 years and over	1,089	189.9	1.98	134.2	143.1	150.6	161.6	184.7	209.1	227.3	240.0	264.9
20–39 years	385	192.2	2.87	133.4	142.3	149.2	160.7	186.0	214.1	234.6	243.9	273.7
40–59 years	381	190.1	2.44	137.2	147.2	155.5	166.0	186.8	207.2	221.6	232.2	256.6
60 years and over	323	179.3	2.32	131.6	140.1	143.3	153.3	175.4	198.3	211.8	226.5	243.9
Mexican American												
20 years and over	628	192.1	2.06	137.1	144.9	153.8	162.7	186.9	211.1	231.2	242.1	270.6
20–39 years	233	194.6	3.40	137.3	143.8	153.0	162.1	190.8	216.5	237.2	245.8	284.4
40–59 years	228	190.5	3.01	134.8	145.8	156.1	167.1	186.8	207.5	222.0	236.8	257.1
60 years and over	167	185.1	2.90	131.8	143.3	148.6	160.6	178.6	204.4	218.8	234.0	245.8

† Estimate not shown because the standard error could not be computed due to small sample size.
[1]Includes persons of other races.
[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 7. Height in centimeters for children and adolescents aged 2–19 years and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Centimeters										
2 years	220	92.2	0.46	85.1	86.7	87.6	88.7	92.4	95.4	96.6	97.5	†
3 years	225	99.0	0.35	91.4	92.7	94.8	95.6	99.1	101.9	103.9	104.7	107.6
4 years	229	106.7	0.38	99.3	100.9	102.2	102.8	106.5	110.3	111.5	112.4	114.1
5 years	195	113.8	0.54	105.8	107.1	108.5	110.7	113.0	117.6	119.7	120.8	121.9
6 years	246	120.0	0.49	112.0	113.3	114.5	115.9	120.1	123.4	125.7	126.6	129.3
7 years	231	126.4	0.49	116.0	118.7	119.9	121.9	126.7	130.7	133.0	134.0	136.5
8 years	227	131.7	0.62	119.9	123.8	124.9	127.5	131.4	135.8	139.3	140.7	142.5
9 years	218	136.5	0.58	127.1	127.8	130.6	132.2	135.6	140.4	143.3	145.0	†
10 years	207	143.0	0.67	130.5	133.4	135.3	137.9	143.0	147.4	149.1	150.4	153.1
11 years	186	150.3	0.79	138.3	140.0	141.9	144.3	149.0	155.4	159.9	162.3	†
12 years	181	155.8	0.78	143.3	145.9	147.7	150.5	155.6	161.2	163.5	164.9	168.5
13 years	175	163.4	0.81	146.7	151.5	153.5	157.8	163.9	168.7	172.3	173.6	175.6
14 years	184	169.4	0.78	153.6	159.4	162.2	165.4	169.0	173.9	178.2	179.5	†
15 years	156	173.4	0.71	163.2	164.0	165.4	168.4	173.8	176.8	179.9	181.6	187.0
16 years	178	173.9	0.60	162.6	166.0	167.6	169.8	174.5	177.6	179.5	182.3	185.4
17 years	147	174.9	1.02	161.5	164.1	165.7	168.6	174.8	180.3	184.5	187.8	190.4
18 years	160	175.6	0.85	162.7	164.7	166.8	169.8	175.3	181.1	183.3	185.5	187.0
19 years	144	176.3	1.12	†	166.1	168.6	170.8	175.9	181.2	183.5	185.4	†
Female												
2 years	264	90.0	0.27	83.6	84.4	85.7	87.0	89.5	92.6	94.8	95.9	97.2
3 years	199	98.1	0.32	91.0	92.8	94.5	95.6	97.8	100.7	102.4	103.3	104.8
4 years	206	105.8	0.40	97.0	99.6	100.4	102.5	106.0	109.0	110.4	111.9	113.1
5 years	178	112.3	0.54	103.2	104.5	106.2	107.9	111.9	115.9	118.8	120.5	122.3
6 years	216	118.7	0.43	110.0	112.0	113.2	114.5	118.6	122.6	124.4	125.4	127.7
7 years	211	124.5	0.46	114.8	117.2	118.5	121.1	123.7	128.1	131.2	132.6	134.7
8 years	197	131.7	0.47	121.1	123.4	124.5	127.1	131.4	136.1	138.7	140.7	142.8
9 years	206	137.7	0.61	127.4	130.0	131.1	133.4	137.5	142.0	143.7	145.5	149.3
10 years	187	144.3	0.77	131.5	135.4	137.0	139.4	143.1	149.1	152.0	155.8	†
11 years	230	150.7	0.63	135.9	141.4	143.1	146.4	151.2	155.2	157.3	160.0	162.1
12 years	166	156.2	0.69	143.4	145.6	149.2	151.4	156.2	160.9	164.1	165.1	167.0
13 years	160	158.5	0.59	148.4	151.2	152.3	155.2	158.5	161.9	164.8	166.3	169.2
14 years	169	160.3	0.54	149.9	152.2	153.2	156.4	161.1	164.2	166.0	167.8	168.5
15 years	150	161.1	0.76	149.1	150.2	153.8	156.5	161.7	166.0	167.7	169.5	170.8
16 years	187	162.3	0.70	152.6	154.5	155.6	157.3	161.7	166.7	169.9	172.1	173.1
17 years	140	162.5	0.51	153.6	154.6	156.3	158.3	162.9	165.4	168.3	170.8	172.7
18 years	154	161.7	0.57	151.3	152.8	155.1	156.7	162.4	166.1	167.7	168.9	170.6
19 years	152	163.0	0.40	152.8	153.7	155.8	159.3	163.5	167.8	169.5	170.1	171.9

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 8. Height in inches for children and adolescents aged 2–19 years and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Inches										
2 years	220	36.3	0.18	33.5	34.1	34.5	34.9	36.4	37.6	38.0	38.4	†
3 years	225	39.0	0.14	36.0	36.5	37.3	37.6	39.0	40.1	40.9	41.2	42.4
4 years	229	42.0	0.15	39.1	39.7	40.3	40.5	41.9	43.4	43.9	44.2	44.9
5 years	195	44.8	0.21	41.6	42.2	42.7	43.6	44.5	46.3	47.1	47.6	48.0
6 years	246	47.2	0.19	44.1	44.6	45.1	45.6	47.3	48.6	49.5	49.8	50.9
7 years	231	49.8	0.19	45.7	46.7	47.2	48.0	49.9	51.5	52.4	52.7	53.8
8 years	227	51.9	0.24	47.2	48.7	49.2	50.2	51.7	53.4	54.8	55.4	56.1
9 years	218	53.7	0.23	50.0	50.3	51.4	52.1	53.4	55.3	56.4	57.1	†
10 years	207	56.3	0.26	51.4	52.5	53.3	54.3	56.3	58.0	58.7	59.2	60.3
11 years	186	59.2	0.31	54.5	55.1	55.9	56.8	58.7	61.2	63.0	63.9	†
12 years	181	61.4	0.31	56.4	57.4	58.1	59.3	61.2	63.5	64.4	64.9	66.3
13 years	175	64.3	0.32	57.8	59.7	60.4	62.1	64.5	66.4	67.8	68.3	69.1
14 years	184	66.7	0.31	60.5	62.7	63.8	65.1	66.5	68.5	70.2	70.7	†
15 years	156	68.3	0.28	64.2	64.6	65.1	66.3	68.4	69.6	70.8	71.5	73.6
16 years	178	68.5	0.24	64.0	65.4	66.0	66.9	68.7	69.9	70.7	71.8	73.0
17 years	147	68.9	0.40	63.6	64.6	65.3	66.4	68.8	71.0	72.6	73.9	75.0
18 years	160	69.1	0.33	64.1	64.8	65.7	66.9	69.0	71.3	72.2	73.0	73.6
19 years	144	69.4	0.44	64.0	65.4	66.4	67.2	69.3	71.3	72.2	73.0	†
Female												
2 years	264	35.4	0.11	32.9	33.2	33.8	34.3	35.2	36.5	37.3	37.7	38.2
3 years	199	38.6	0.13	35.8	36.5	37.2	37.6	38.5	39.6	40.3	40.7	41.3
4 years	206	41.7	0.16	38.2	39.2	39.5	40.4	41.7	42.9	43.5	44.1	44.5
5 years	178	44.2	0.21	40.6	41.1	41.8	42.5	44.0	45.6	46.8	47.4	48.2
6 years	216	46.7	0.17	43.3	44.1	44.6	45.1	46.7	48.3	49.0	49.4	50.3
7 years	211	49.0	0.18	45.2	46.1	46.7	47.7	48.7	50.4	51.6	52.2	53.0
8 years	197	51.8	0.18	47.7	48.6	49.0	50.0	51.7	53.6	54.6	55.4	56.2
9 years	206	54.2	0.24	50.2	51.2	51.6	52.5	54.1	55.9	56.6	57.3	58.8
10 years	187	56.8	0.30	51.8	53.3	54.0	54.9	56.3	58.7	59.8	61.3	†
11 years	230	59.3	0.25	53.5	55.7	56.3	57.6	59.5	61.1	61.9	63.0	63.8
12 years	166	61.5	0.27	56.5	57.3	58.7	59.6	61.5	63.4	64.6	65.0	65.8
13 years	160	62.4	0.23	58.4	59.5	60.0	61.1	62.4	63.7	64.9	65.5	66.6
14 years	169	63.1	0.21	59.0	59.9	60.3	61.6	63.4	64.6	65.3	66.1	66.3
15 years	150	63.4	0.30	58.7	59.1	60.6	61.6	63.6	65.4	66.0	66.8	67.2
16 years	187	63.9	0.28	60.1	60.8	61.3	61.9	63.7	65.6	66.9	67.7	68.1
17 years	140	64.0	0.20	60.5	60.9	61.5	62.3	64.1	65.1	66.2	67.3	68.0
18 years	154	63.6	0.22	59.6	60.1	61.0	61.7	63.9	65.4	66.0	66.5	67.2
19 years	152	64.2	0.16	60.1	60.5	61.4	62.7	64.4	66.1	66.7	67.0	67.7

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 9. Height in centimeters for females aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	5,547	161.8	0.21	149.8	152.7	154.3	156.8	161.9	166.4	169.0	170.7	173.5
20–29 years	928	162.9	0.30	151.9	154.4	156.0	158.4	162.9	167.2	169.1	171.1	174.2
30–39 years	957	163.4	0.30	151.2	153.8	155.6	158.3	163.6	168.6	170.9	172.5	175.3
40–49 years	987	162.9	0.31	150.9	153.7	155.4	158.1	163.0	167.3	169.8	171.7	174.4
50–59 years	924	161.9	0.37	150.9	152.9	154.7	156.9	162.2	165.9	168.5	170.5	173.2
60–69 years	888	160.5	0.37	149.9	152.5	153.6	156.1	160.5	164.7	167.0	168.8	171.9
70–79 years	527	159.3	0.35	147.5	150.3	152.0	154.5	160.0	163.8	166.0	167.9	170.3
80 years and over	336	155.6	0.37	144.6	146.4	148.1	151.5	155.7	160.2	161.8	163.4	166.4
Non-Hispanic white												
20 years and over	2,199	162.9	0.23	151.7	154.0	155.7	158.3	162.9	167.2	169.7	171.5	174.4
20–39 years	689	165.0	0.20	154.2	156.6	158.1	160.6	164.8	169.1	171.4	173.3	176.5
40–59 years	692	163.7	0.37	152.9	155.1	156.6	159.5	163.5	167.7	170.1	172.2	174.6
60 years and over	818	159.9	0.31	148.8	151.6	153.2	155.3	160.1	164.2	166.7	168.3	170.6
Non-Hispanic black												
20 years and over	1,302	163.0	0.27	151.4	154.1	155.7	158.8	163.1	167.3	169.6	171.1	173.5
20–39 years	418	163.6	0.39	152.5	154.7	156.2	159.7	163.7	167.5	170.0	171.5	174.8
40–59 years	482	163.8	0.36	152.8	155.2	157.2	159.7	164.0	167.8	170.4	171.9	174.0
60 years and over	402	160.3	0.41	149.4	151.3	153.2	155.8	160.6	164.8	167.0	168.6	170.9
Non-Hispanic Asian												
20 years and over	708	157.0	0.35	146.4	148.4	150.2	152.8	156.9	161.0	163.3	165.2	167.1
20–39 years	272	158.4	0.45	148.2	150.8	152.3	154.4	158.1	162.2	164.1	166.0	167.9
40–59 years	269	157.3	0.37	147.0	148.7	150.7	153.3	157.0	161.7	164.4	165.6	167.9
60 years and over	167	153.6	0.48	145.0	145.8	147.5	149.4	153.6	157.4	158.8	160.1	161.8
Hispanic[2]												
20 years and over	1,186	157.5	0.24	146.7	149.0	150.5	153.1	157.3	161.9	164.5	165.8	168.5
20–39 years	428	158.9	0.34	147.8	150.4	152.1	154.4	159.1	163.0	165.2	166.4	169.3
40–59 years	417	157.3	0.28	147.0	149.1	150.5	152.6	156.6	161.4	164.7	166.2	168.3
60 years and over	341	153.9	0.28	144.0	146.0	147.5	150.1	153.9	157.8	160.2	161.6	163.9
Mexican American												
20 years and over	620	157.3	0.30	146.7	148.7	150.2	152.5	157.2	161.6	164.3	165.5	168.1
20–39 years	247	158.4	0.40	147.5	150.0	151.7	153.6	158.7	162.7	164.9	165.9	169.1
40–59 years	220	156.9	0.44	146.6	148.6	149.4	151.8	156.9	161.1	164.1	165.8	167.7
60 years and over	153	*153.5	0.42	*143.3	*146.2	*147.6	*150.1	*153.5	*157.1	*159.9	*160.6	*163.8

* Estimate does not meet standards of reliability or precision based on less than 12 degrees of freedom.

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 10. Height in inches for females aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Inches										
20 years and over	5,547	63.7	0.08	59.0	60.1	60.7	61.7	63.7	65.5	66.5	67.2	68.3
20–29 years	928	64.1	0.12	59.8	60.8	61.4	62.3	64.1	65.8	66.6	67.4	68.6
30–39 years	957	64.3	0.12	59.5	60.5	61.3	62.3	64.4	66.4	67.3	67.9	69.0
40–49 years	987	64.1	0.12	59.4	60.5	61.2	62.2	64.2	65.9	66.8	67.6	68.7
50–59 years	924	63.7	0.15	59.4	60.2	60.9	61.8	63.9	65.3	66.3	67.1	68.2
60–69 years	888	63.2	0.15	59.0	60.1	60.5	61.5	63.2	64.9	65.8	66.5	67.7
70–79 years	527	62.7	0.14	58.1	59.2	59.8	60.8	63.0	64.5	65.4	66.1	67.1
80 years and over	336	61.3	0.15	56.9	57.7	58.3	59.6	61.3	63.1	63.7	64.3	65.5
Non-Hispanic white												
20 years and over	2,199	64.1	0.09	59.7	60.6	61.3	62.3	64.1	65.8	66.8	67.5	68.6
20–39 years	689	64.9	0.08	60.7	61.7	62.2	63.2	64.9	66.6	67.5	68.2	69.5
40–59 years	692	64.4	0.15	60.2	61.1	61.6	62.8	64.4	66.0	67.0	67.8	68.8
60 years and over	818	63.0	0.12	58.6	59.7	60.3	61.1	63.0	64.7	65.6	66.3	67.2
Non-Hispanic black												
20 years and over	1,302	64.2	0.10	59.6	60.7	61.3	62.5	64.2	65.9	66.8	67.4	68.3
20–39 years	418	64.4	0.15	60.1	60.9	61.5	62.9	64.4	66.0	66.9	67.5	68.8
40–59 years	482	64.5	0.14	60.1	61.1	61.9	62.9	64.6	66.1	67.1	67.7	68.5
60 years and over	402	63.1	0.16	58.8	59.6	60.3	61.4	63.2	64.9	65.8	66.4	67.3
Non-Hispanic Asian												
20 years and over	708	61.8	0.14	57.7	58.4	59.1	60.2	61.8	63.4	64.3	65.0	65.8
20–39 years	272	62.4	0.18	58.4	59.4	60.0	60.8	62.2	63.9	64.6	65.4	66.1
40–59 years	269	61.9	0.15	57.9	58.6	59.3	60.4	61.8	63.7	64.7	65.2	66.1
60 years and over	167	60.5	0.19	57.1	57.4	58.1	58.8	60.5	62.0	62.5	63.1	63.7
Hispanic[2]												
20 years and over	1,186	62.0	0.09	57.8	58.7	59.3	60.3	61.9	63.7	64.8	65.3	66.3
20–39 years	428	62.6	0.13	58.2	59.2	59.9	60.8	62.6	64.2	65.0	65.5	66.6
40–59 years	417	61.9	0.11	57.9	58.7	59.3	60.1	61.6	63.5	64.8	65.4	66.3
60 years and over	341	60.6	0.11	56.7	57.5	58.1	59.1	60.6	62.1	63.1	63.6	64.5
Mexican American												
20 years and over	620	61.9	0.12	57.7	58.6	59.1	60.0	61.9	63.6	64.7	65.2	66.2
20–39 years	247	62.4	0.16	58.1	59.1	59.7	60.5	62.5	64.1	64.9	65.3	66.6
40–59 years	220	61.8	0.17	57.7	58.5	58.8	59.8	61.8	63.4	64.6	65.3	66.0
60 years and over	153	*60.5	0.16	*56.4	*57.6	*58.1	*59.1	*60.4	*61.9	*62.9	*63.2	*64.5

* Estimate does not meet standards of reliability or precision based on less than 12 degrees of freedom.

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 11. Height in centimeters for males aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	5,232	175.7	0.21	163.4	166.2	168.0	170.6	175.6	180.8	183.7	185.4	188.1
20–29 years	937	176.4	0.26	164.9	166.9	168.5	171.1	176.2	181.3	184.5	186.4	188.8
30–39 years	914	176.6	0.30	163.8	167.1	168.8	171.5	176.6	181.6	184.4	186.6	189.1
40–49 years	872	176.2	0.42	163.8	166.8	168.5	171.0	176.1	180.9	184.3	185.7	187.7
50–59 years	852	176.0	0.50	164.5	166.9	168.5	170.7	175.6	181.3	183.7	185.4	188.5
60–69 years	877	175.3	0.46	162.1	165.5	167.4	170.3	175.6	180.8	183.1	184.2	187.4
70–79 years	486	173.0	0.32	162.2	164.3	165.4	168.3	172.6	177.4	180.0	182.2	185.2
80 years and over	294	171.6	0.59	159.7	163.0	164.2	167.5	171.9	176.2	179.0	180.3	182.8
Non-Hispanic white												
20 years and over	2,094	177.1	0.27	165.5	168.0	169.7	172.1	176.8	181.7	184.5	186.3	188.9
20–39 years	715	178.2	0.27	166.8	169.1	171.0	173.2	178.3	183.3	186.1	187.6	189.6
40–59 years	655	177.5	0.43	166.7	168.9	170.3	173.1	177.5	182.0	184.9	186.2	188.9
60 years and over	724	175.2	0.34	163.9	165.9	167.7	170.2	175.2	180.1	182.7	183.8	187.0
Non-Hispanic black												
20 years and over	1,222	176.4	0.29	164.9	167.7	169.1	171.2	175.9	181.4	184.0	186.1	188.8
20–39 years	405	177.4	0.31	165.7	168.5	169.8	171.8	177.2	182.7	185.2	187.0	189.8
40–59 years	394	176.5	0.48	165.3	167.9	169.4	171.6	176.0	181.3	182.8	185.0	188.0
60 years and over	423	174.1	0.38	162.5	165.5	167.1	169.5	173.8	178.6	182.4	183.8	186.2
Non-Hispanic Asian												
20 years and over	666	170.3	0.41	158.7	161.1	163.1	165.6	170.1	174.6	177.5	179.1	181.3
20–39 years	260	172.3	0.38	161.0	163.9	166.0	168.1	172.2	176.6	178.8	180.4	183.0
40–59 years	247	170.2	0.55	159.4	161.7	163.4	165.8	170.0	174.4	176.8	178.7	180.9
60 years and over	159	165.7	0.60	155.0	157.8	159.0	161.6	165.3	169.5	172.1	173.4	177.0
Hispanic[2]												
20 years and over	1,089	171.3	0.25	159.5	161.9	163.7	166.3	170.9	176.0	178.8	180.7	183.4
20–39 years	385	172.4	0.29	160.5	163.5	165.3	167.5	172.3	177.3	179.7	181.6	184.3
40–59 years	381	170.8	0.46	158.5	161.5	163.1	165.8	170.6	175.4	177.7	180.2	183.5
60 years and over	323	167.7	0.37	156.7	159.1	160.6	162.9	167.3	171.7	174.5	176.4	179.7
Mexican American												
20 years and over	627	171.0	0.31	159.1	162.0	163.7	166.1	170.4	175.8	178.4	180.5	182.8
20–39 years	233	172.2	0.43	160.1	163.5	165.2	167.5	172.1	177.1	180.0	181.6	183.5
40–59 years	227	169.8	0.52	157.9	160.9	162.3	164.8	169.7	174.4	177.1	178.7	182.5
60 years and over	167	168.4	0.39	158.2	159.7	161.8	164.4	168.2	172.6	175.7	177.1	178.7

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 12. Height in inches for males aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Inches										
20 years and over	5,232	69.2	0.08	64.3	65.4	66.1	67.2	69.1	71.2	72.3	73.0	74.1
20–29 years	937	69.4	0.10	64.9	65.7	66.3	67.4	69.4	71.4	72.6	73.4	74.3
30–39 years	914	69.5	0.12	64.5	65.8	66.5	67.5	69.5	71.5	72.6	73.5	74.4
40–49 years	872	69.4	0.17	64.5	65.7	66.3	67.3	69.3	71.2	72.6	73.1	73.9
50–59 years	852	69.3	0.20	64.8	65.7	66.3	67.2	69.1	71.4	72.3	73.0	74.2
60–69 years	877	69.0	0.18	63.8	65.2	65.9	67.1	69.1	71.2	72.1	72.5	73.8
70–79 years	486	68.1	0.12	63.9	64.7	65.1	66.3	67.9	69.8	70.9	71.7	72.9
80 years and over	294	67.6	0.23	62.9	64.2	64.7	65.9	67.7	69.4	70.5	71.0	72.0
Non-Hispanic white												
20 years and over	2,094	69.7	0.10	65.2	66.2	66.8	67.7	69.6	71.5	72.7	73.3	74.4
20–39 years	715	70.1	0.11	65.7	66.6	67.3	68.2	70.2	72.1	73.3	73.8	74.7
40–59 years	655	69.9	0.17	65.6	66.5	67.0	68.1	69.9	71.7	72.8	73.3	74.4
60 years and over	724	69.0	0.14	64.5	65.3	66.0	67.0	69.0	70.9	71.9	72.4	73.6
Non-Hispanic black												
20 years and over	1,222	69.5	0.11	64.9	66.0	66.6	67.4	69.3	71.4	72.4	73.3	74.3
20–39 years	405	69.8	0.12	65.2	66.3	66.9	67.6	69.7	71.9	72.9	73.6	74.7
40–59 years	394	69.5	0.19	65.1	66.1	66.7	67.6	69.3	71.4	72.0	72.8	74.0
60 years and over	423	68.5	0.15	64.0	65.2	65.8	66.7	68.4	70.3	71.8	72.4	73.3
Non-Hispanic Asian												
20 years and over	666	67.0	0.16	62.5	63.4	64.2	65.2	67.0	68.8	69.9	70.5	71.4
20–39 years	260	67.8	0.15	63.4	64.5	65.4	66.2	67.8	69.5	70.4	71.0	72.0
40–59 years	247	67.0	0.22	62.7	63.7	64.3	65.3	66.9	68.7	69.6	70.4	71.2
60 years and over	159	65.2	0.24	61.0	62.1	62.6	63.6	65.1	66.7	67.7	68.3	69.7
Hispanic[2]												
20 years and over	1,089	67.4	0.10	62.8	63.8	64.5	65.5	67.3	69.3	70.4	71.1	72.2
20–39 years	385	67.9	0.11	63.2	64.4	65.1	65.9	67.8	69.8	70.8	71.5	72.6
40–59 years	381	67.2	0.18	62.4	63.6	64.2	65.3	67.2	69.1	69.9	70.9	72.2
60 years and over	323	66.0	0.15	61.7	62.6	63.2	64.1	65.9	67.6	68.7	69.4	70.7
Mexican American												
20 years and over	627	67.3	0.12	62.6	63.8	64.5	65.4	67.1	69.2	70.2	71.1	72.0
20–39 years	233	67.8	0.17	63.0	64.4	65.0	66.0	67.8	69.7	70.9	71.5	72.2
40–59 years	227	66.9	0.21	62.2	63.4	63.9	64.9	66.8	68.6	69.7	70.3	71.8
60 years and over	167	66.3	0.15	62.3	62.9	63.7	64.7	66.2	67.9	69.2	69.7	70.4

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 13. Body mass index values for children and adolescents aged 2–19 years and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Body mass index										
2 years	220	16.8	0.13	14.7	15.1	15.4	15.9	16.7	17.6	18.1	18.3	18.9
3 years	223	16.3	0.12	14.4	14.7	15.1	15.4	16.0	17.1	17.4	17.7	18.8
4 years	229	16.2	0.11	14.1	14.5	14.6	14.9	15.8	16.7	17.4	17.8	19.7
5 years	195	16.3	0.17	13.9	14.3	14.6	15.0	16.1	16.9	17.4	18.3	20.6
6 years	246	16.5	0.18	14.1	14.3	14.6	15.1	16.0	17.1	18.0	18.8	20.5
7 years	231	17.4	0.24	13.9	14.4	14.7	15.2	16.2	18.3	20.4	22.8	25.0
8 years	227	17.9	0.24	14.1	14.7	15.1	15.5	16.6	19.3	21.3	22.5	24.2
9 years	218	18.0	0.28	†	14.2	14.8	15.5	17.1	19.1	21.5	22.9	25.6
10 years	207	19.5	0.47	14.4	14.8	15.5	16.2	17.9	21.8	23.7	25.2	28.0
11 years	186	21.2	0.46	15.2	15.7	16.0	17.1	20.5	23.8	26.3	27.8	30.3
12 years	181	20.6	0.45	15.2	16.1	16.8	17.6	19.2	22.3	25.3	27.9	29.7
13 years	175	22.6	0.56	16.3	17.0	17.4	18.7	21.0	25.4	27.4	29.7	31.6
14 years	184	22.8	0.48	16.8	17.7	18.6	19.4	21.2	24.2	28.1	30.0	33.7
15 years	156	23.6	0.58	17.1	17.9	18.3	19.5	22.0	26.0	28.4	30.7	36.5
16 years	178	24.5	0.40	18.3	18.8	19.1	20.4	22.9	26.9	30.4	31.3	36.7
17 years	147	24.5	0.58	18.1	18.8	19.1	20.4	23.6	26.2	29.1	31.8	36.2
18 years	160	26.3	0.86	18.8	19.7	20.0	21.6	24.6	28.8	32.5	33.4	38.8
19 years	144	25.4	0.71	17.0	17.8	19.5	21.8	23.7	27.6	31.2	36.1	40.2
Female												
2 years	264	16.6	0.11	14.4	14.8	15.3	15.7	16.3	17.2	17.8	18.3	18.9
3 years	199	16.3	0.17	14.3	14.6	14.9	15.3	15.9	16.7	17.6	18.0	19.2
4 years	206	16.2	0.18	13.5	14.1	14.3	14.7	15.9	17.2	17.7	18.0	20.4
5 years	178	16.1	0.18	13.7	14.1	14.4	14.8	15.6	16.8	17.6	18.2	20.8
6 years	216	16.7	0.26	13.6	14.0	14.3	14.7	15.9	18.1	19.6	20.4	22.3
7 years	211	17.0	0.30	13.4	13.6	14.1	14.7	16.1	18.3	20.5	21.9	23.4
8 years	197	18.1	0.28	14.1	14.5	14.7	15.5	17.1	19.7	21.5	22.4	25.2
9 years	206	19.6	0.34	14.4	15.1	15.4	16.2	18.3	21.4	24.1	25.5	29.2
10 years	187	19.5	0.45	13.9	14.6	15.1	16.4	19.1	21.6	24.2	25.1	26.8
11 years	230	20.7	0.47	14.5	15.4	16.1	17.0	19.3	23.3	25.8	28.1	31.8
12 years	166	22.6	0.64	15.5	16.6	17.0	18.0	21.0	26.1	27.7	30.3	35.9
13 years	160	22.0	0.59	16.0	16.5	17.1	18.1	20.5	24.3	27.0	30.4	31.6
14 years	169	23.2	0.58	16.9	18.3	18.6	19.1	21.5	26.6	28.3	29.4	32.7
15 years	150	24.6	0.86	17.4	18.8	19.1	20.4	23.2	27.2	30.8	32.6	37.3
16 years	187	24.6	0.76	17.7	18.6	19.1	20.0	22.5	26.1	31.9	35.4	40.0
17 years	139	25.4	0.68	18.4	19.1	19.6	20.3	22.9	29.4	33.0	34.6	38.8
18 years	154	25.7	1.12	18.3	19.5	20.4	20.9	23.5	27.5	30.3	35.5	43.4
19 years	152	25.8	0.84	17.0	18.4	18.9	20.2	23.4	29.5	32.7	37.6	42.5

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

NOTES: Data exclude pregnant females. Body mass index (BMI) is calculated as: BMI = weight(kilograms)/height(meters^2).

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 14. Body mass index values for females aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Body mass index										
20 years and over	5,413	29.2	0.17	19.6	21.0	22.0	23.6	27.7	33.2	36.5	39.3	43.3
20–29 years	853	27.6	0.32	18.6	19.8	20.7	21.9	25.6	31.8	36.0	38.9	42.0
30–39 years	915	29.4	0.33	19.8	21.1	22.0	23.3	27.6	33.1	36.6	40.0	44.7
40–49 years	978	29.6	0.39	20.0	21.5	22.5	23.7	28.1	33.4	37.0	39.6	44.5
50–59 years	922	30.2	0.40	19.9	21.5	22.2	24.5	28.6	34.4	38.3	40.7	45.2
60–69 years	886	29.7	0.27	20.0	21.7	23.0	24.5	28.9	33.4	36.1	38.7	41.8
70–79 years	525	29.6	0.41	20.5	22.1	22.9	24.6	28.3	33.4	36.5	39.1	42.9
80 years and over	334	26.6	0.32	19.3	20.4	21.3	23.3	26.1	29.7	30.9	32.8	35.2
Non-Hispanic white												
20 years and over	2,151	28.8	0.22	19.5	20.9	21.9	23.4	27.3	32.6	36.0	38.8	43.0
20–39 years	649	28.0	0.30	19.0	20.4	21.1	22.3	25.9	31.8	35.8	38.9	42.5
40–59 years	686	29.4	0.34	19.8	21.4	22.1	23.6	27.9	33.4	37.2	40.1	43.8
60 years and over	816	28.9	0.31	19.8	21.4	22.6	24.2	27.9	32.4	35.0	37.5	41.2
Non-Hispanic black												
20 years and over	1,261	32.5	0.25	20.9	22.8	24.3	26.6	31.3	36.8	40.5	43.5	48.8
20–39 years	380	32.1	0.35	19.7	21.8	23.5	25.9	31.0	36.9	40.6	43.4	47.1
40–59 years	480	33.3	0.44	21.9	23.5	24.9	27.1	31.9	37.2	41.7	44.8	50.4
60 years and over	401	31.7	0.45	21.6	22.8	24.1	26.2	30.9	35.8	39.0	41.3	46.1
Non-Hispanic Asian												
20 years and over	691	24.2	0.22	18.4	19.1	19.8	20.8	23.3	26.7	28.8	30.5	32.6
20–39 years	258	23.3	0.31	17.9	18.6	19.0	19.9	22.4	25.0	28.3	30.0	31.8
40–59 years	267	24.9	0.30	19.1	19.9	20.4	21.5	23.9	27.2	29.1	31.6	34.2
60 years and over	166	24.7	0.34	18.9	19.9	20.5	21.7	24.1	27.2	29.2	30.2	31.4
Hispanic[2]												
20 years and over	1,163	30.0	0.27	20.8	22.1	23.1	25.1	28.9	33.9	36.9	38.8	42.8
20–39 years	408	29.3	0.45	19.9	21.7	22.3	24.4	27.9	32.9	36.4	38.6	42.6
40–59 years	416	31.0	0.34	21.7	22.7	23.7	26.1	30.2	34.9	37.6	39.5	44.1
60 years and over	339	30.3	0.34	21.5	22.4	23.6	25.9	29.5	34.3	36.4	38.4	41.2
Mexican American												
20 years and over	609	30.7	0.35	21.4	22.5	23.8	25.8	29.6	34.8	37.5	39.5	43.8
20–39 years	238	29.8	0.55	20.3	21.9	23.0	24.9	28.8	32.9	36.5	38.7	42.7
40–59 years	219	31.8	0.40	22.6	23.8	25.0	26.4	30.8	35.8	38.0	40.5	44.1
60 years and over	152	*31.1	0.47	*21.3	*22.2	*23.9	*26.1	*30.2	*35.5	*38.2	*39.3	*41.6

* Estimate does not meet standards of reliability or precision based on less than 12 degrees of freedom.

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

NOTES: Data exclude pregnant females. Body mass index (BMI) is calculated as: BMI = weight(kilograms)/height(meters^2).

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 15. Body mass index values for males aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Body mass index										
20 years and over	5,223	28.7	0.13	20.7	22.2	23.0	24.6	27.7	31.6	34.0	36.1	39.8
20–29 years	936	27.2	0.38	19.3	20.5	21.2	22.5	25.5	30.5	33.1	35.1	39.2
30–39 years	914	28.9	0.24	21.1	22.4	23.3	24.8	27.5	31.9	35.1	36.5	39.3
40–49 years	871	29.4	0.20	21.9	23.4	24.3	25.7	28.5	31.9	34.4	36.5	40.0
50–59 years	852	29.1	0.24	21.6	22.7	23.6	25.4	28.3	32.0	34.0	35.2	40.3
60–69 years	873	29.4	0.41	21.6	22.7	23.6	25.3	28.0	32.4	35.3	36.9	41.2
70–79 years	484	28.6	0.30	21.5	23.2	23.9	25.4	27.8	30.9	33.1	34.9	38.9
80 years and over	293	26.7	0.25	20.0	21.5	22.5	24.1	26.3	29.0	31.1	32.3	33.8
Non-Hispanic white												
20 years and over	2,091	28.7	0.16	20.9	22.3	23.2	24.8	27.7	31.6	34.0	36.0	39.5
20–39 years	715	27.7	0.37	20.1	21.1	21.9	23.2	26.4	30.6	33.4	35.9	38.5
40–59 years	655	29.4	0.25	22.0	23.2	24.1	25.7	28.5	32.2	34.2	36.0	40.0
60 years and over	721	29.0	0.30	21.4	22.8	23.7	25.3	27.9	31.6	34.1	36.0	39.4
Non-Hispanic black												
20 years and over	1,218	28.9	0.20	20.0	21.1	22.4	24.0	27.9	32.2	35.2	37.7	41.9
20–39 years	404	28.4	0.38	19.5	20.5	21.4	23.3	26.4	32.5	35.4	37.2	41.3
40–59 years	394	29.7	0.33	20.2	21.9	22.9	25.1	28.7	32.4	35.5	39.2	42.5
60 years and over	420	28.6	0.37	20.4	22.1	22.7	24.2	27.7	31.6	33.6	36.5	40.4
Non-Hispanic Asian												
20 years and over	665	25.2	0.17	19.1	20.6	21.3	22.4	24.6	27.3	28.7	30.2	31.8
20–39 years	260	25.2	0.30	18.5	20.1	20.7	22.0	24.2	27.7	30.2	31.4	33.5
40–59 years	247	25.2	0.17	20.4	21.1	21.9	23.0	25.0	27.3	28.2	29.4	30.6
60 years and over	158	24.9	0.32	18.5	20.5	21.6	22.7	24.8	26.7	27.7	28.5	29.8
Hispanic[2]												
20 years and over	1,088	29.3	0.26	21.4	22.9	23.9	25.5	28.6	32.0	33.9	36.4	39.9
20–39 years	385	29.3	0.39	20.7	22.1	23.4	24.9	28.6	32.4	34.8	37.3	40.1
40–59 years	380	29.5	0.28	22.6	23.8	24.7	26.4	28.8	31.7	33.5	35.3	38.9
60 years and over	323	28.8	0.31	22.4	23.7	24.2	25.5	27.9	31.6	33.0	34.5	37.5
Mexican American												
20 years and over	627	29.7	0.26	21.8	23.4	24.4	26.1	29.2	32.3	34.8	37.2	40.0
20–39 years	233	29.7	0.45	21.3	22.5	23.7	25.3	29.2	32.6	35.1	38.2	40.1
40–59 years	227	29.9	0.32	22.9	24.2	25.5	26.8	29.3	32.0	33.7	36.0	39.6
60 years and over	167	29.5	0.40	22.2	23.8	24.3	25.8	28.9	32.2	33.5	36.5	39.3

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

NOTE: Body mass index (BMI) is calculated as: BMI = weight(kilograms)/height(meters^2).

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 16. Head circumference in centimeters for infants from birth through age 6 months and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Centimeters										
Birth–2 months	75	39.4	0.20	36.3	36.7	37.3	38.3	39.4	40.4	41.2	41.6	41.9
3–5 months	90	42.7	0.23	39.8	40.3	41.2	41.8	42.6	43.7	44.3	44.5	45.3
6 months	35	*44.0	0.20	†	*42.3	*42.5	*43.4	*43.9	*44.7	*44.9	*45.4	†
Female												
Birth–2 months	72	38.0	0.16	35.7	36.2	36.4	37.0	38.0	38.7	39.4	39.9	40.2
3–5 months	104	41.3	0.18	38.5	39.0	39.6	40.4	41.2	42.3	42.9	43.3	43.7
6 months	38	*43.2	0.23	*41.3	*41.8	*42.0	*42.1	*42.7	*44.0	*44.4	*44.9	†

* Estimate does not meet standards of reliability or precision based on less than 12 degrees of freedom.

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 17. Recumbent length in centimeters for children from birth through age 47 months and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Centimeters										
Birth–2 months	75	57.5	0.41	51.6	52.9	54.7	55.1	57.7	59.5	60.6	61.3	†
3–5 months	90	64.0	0.35	58.9	59.5	60.8	61.9	64.2	66.3	67.5	68.0	68.5
6–8 months	103	68.9	0.28	64.5	65.8	66.4	67.1	68.7	70.6	71.1	71.6	72.7
9–11 months	96	73.5	0.28	68.8	69.7	70.2	71.6	73.3	75.1	76.6	77.1	77.9
1 year	239	81.6	0.28	74.8	76.0	76.9	78.6	81.3	84.4	86.5	87.2	89.1
2 years	238	92.4	0.41	85.4	86.9	87.9	89.5	92.4	95.4	96.7	97.6	99.3
3 years	219	100.0	0.38	92.4	93.6	95.2	96.9	99.8	102.7	104.7	105.4	108.6
Female												
Birth–2 months	71	55.7	0.24	51.0	53.0	53.5	54.0	55.5	57.5	58.4	59.4	60.1
3–5 months	104	62.9	0.39	57.9	58.7	59.4	60.1	62.5	65.8	66.5	66.8	67.0
6–8 months	91	67.3	0.29	63.1	63.8	64.3	65.1	67.0	69.3	70.3	70.8	71.6
9–11 months	104	71.5	0.24	67.6	68.5	68.8	69.8	71.6	72.9	73.6	74.4	75.1
1 year	221	80.8	0.43	71.9	73.7	75.3	76.8	80.9	84.5	86.3	87.1	88.7
2 years	276	90.4	0.31	83.8	85.4	85.9	87.6	90.1	93.2	95.3	96.5	97.6
3 years	192	99.2	0.35	91.9	93.5	95.4	96.6	99.2	101.7	103.6	104.4	106.1

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 18. Waist circumference in centimeters for children and adolescents aged 2–19 years and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Centimeters										
2 years	200	48.7	0.23	43.5	44.7	45.7	47.1	48.3	50.2	51.5	52.4	53.3
3 years	203	50.3	0.23	45.4	46.2	46.9	48.5	50.1	51.6	52.7	53.4	54.8
4 years	217	52.9	0.32	47.2	47.7	48.3	49.3	52.1	55.3	56.5	57.2	63.0
5 years	182	55.0	0.50	48.5	49.7	50.4	51.9	54.1	56.4	59.4	60.8	63.9
6 years	239	57.0	0.48	49.8	50.9	51.9	53.0	55.6	59.3	61.4	63.3	67.7
7 years	226	60.6	0.66	51.3	52.6	53.3	55.0	57.9	62.3	68.6	75.2	81.0
8 years	219	62.8	0.61	52.5	54.4	55.2	56.4	59.9	66.6	72.0	74.1	80.8
9 years	213	64.4	0.80	52.2	54.9	56.6	58.1	61.5	67.5	72.3	78.8	86.5
10 years	199	69.1	1.25	55.2	56.5	58.2	59.9	64.2	76.3	81.0	86.2	90.8
11 years	182	74.9	1.40	57.7	60.3	61.6	64.0	71.5	82.4	90.3	95.2	101.1
12 years	172	73.9	1.37	58.6	61.4	63.1	65.8	70.1	77.5	87.6	89.9	98.6
13 years	169	79.5	1.56	62.0	64.1	65.7	68.9	74.8	89.5	93.9	100.7	†
14 years	176	79.8	1.26	64.3	65.8	67.6	70.3	75.4	84.5	95.8	102.0	111.4
15 years	152	82.3	1.53	†	68.0	69.0	71.3	77.4	88.0	94.4	103.4	114.9
16 years	174	84.8	1.09	68.8	70.7	71.5	74.1	78.6	92.3	101.7	104.7	117.1
17 years	143	84.4	1.66	69.5	71.8	73.0	74.2	80.0	88.1	95.8	105.8	120.9
18 years	156	87.9	1.55	†	71.6	73.7	76.9	85.0	95.8	101.2	105.5	119.0
19 years	142	87.0	1.90	69.9	72.0	73.6	76.6	82.5	90.7	102.2	†	†
Female												
2 years	241	48.3	0.33	43.0	43.9	44.5	45.7	48.2	50.4	51.5	52.0	54.3
3 years	182	51.1	0.48	45.0	46.0	46.4	47.6	50.1	53.4	55.4	56.9	59.1
4 years	194	53.1	0.49	46.2	47.8	48.4	49.5	51.8	55.2	57.7	58.4	64.6
5 years	170	54.7	0.44	47.2	48.5	49.3	51.4	54.0	56.2	58.8	62.1	66.6
6 years	210	57.5	0.66	49.5	50.3	51.6	52.5	55.3	60.5	65.5	68.4	73.2
7 years	204	59.1	0.78	49.3	50.0	51.2	52.5	57.0	63.3	68.5	70.3	76.8
8 years	190	63.7	0.85	52.1	53.4	54.3	56.3	59.9	69.2	73.9	75.6	83.3
9 years	198	68.0	1.05	54.3	55.4	56.5	58.8	65.6	74.5	81.3	85.6	91.8
10 years	182	69.5	1.29	54.8	56.4	57.4	60.1	66.9	77.7	82.9	87.5	89.4
11 years	223	73.5	1.16	58.9	59.8	61.0	63.9	70.1	79.9	87.0	92.5	98.6
12 years	163	78.0	1.58	59.2	62.0	64.9	67.0	74.4	86.3	92.0	98.7	108.0
13 years	155	77.1	1.32	61.9	64.6	66.6	69.6	73.6	82.1	87.9	97.6	100.1
14 years	163	79.6	1.30	66.0	67.7	68.8	70.3	76.1	85.9	93.9	97.2	101.3
15 years	146	82.2	1.79	67.1	69.4	70.0	73.0	77.2	89.0	98.5	104.4	108.4
16 years	180	83.5	2.28	65.7	68.1	69.7	72.1	78.6	87.2	101.8	108.8	†
17 years	133	85.0	1.61	67.5	70.1	72.2	73.4	80.1	95.7	101.3	102.2	114.5
18 years	153	84.7	2.18	67.0	69.3	70.6	72.8	79.9	89.6	97.6	112.2	†
19 years	145	86.7	1.76	67.4	68.5	69.7	74.9	82.0	92.3	101.0	117.2	123.2

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

NOTE: Data exclude pregnant females.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 19. Waist circumference in centimeters for females aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	5,116	96.9	0.38	73.8	77.3	79.9	84.4	94.8	106.5	113.9	119.2	127.9
20–29 years	812	91.0	0.88	70.5	72.9	74.4	78.0	86.9	100.4	109.9	115.8	125.6
30–39 years	885	96.0	0.74	74.0	76.5	78.8	82.6	92.7	104.8	113.2	120.3	128.7
40–49 years	935	97.1	0.79	74.7	77.8	80.1	84.2	95.7	107.2	113.8	119.0	128.1
50–59 years	887	99.7	0.85	76.5	80.1	82.8	86.6	97.5	109.1	116.1	124.8	134.0
60–69 years	856	99.7	0.71	77.9	81.2	84.8	88.9	99.0	108.0	115.3	119.6	127.1
70–79 years	471	100.3	0.87	77.5	82.5	86.3	91.1	99.2	109.2	115.2	119.1	125.0
80 years and over	270	94.3	0.84	76.0	79.2	81.3	85.3	93.5	102.1	106.7	109.2	115.4
Non-Hispanic white												
20 years and over	2,032	96.8	0.45	74.0	77.6	79.9	84.3	94.8	106.2	113.4	119.0	128.0
20–39 years	631	92.9	0.79	72.1	74.4	76.9	79.7	89.3	102.7	111.5	117.9	126.7
40–59 years	665	98.1	0.73	74.9	78.6	81.4	85.0	95.9	107.5	114.9	121.2	132.9
60 years and over	736	98.8	0.71	77.6	80.5	84.5	88.7	97.8	107.2	113.3	117.8	124.6
Non-Hispanic black												
20 years and over	1,177	102.5	0.48	76.1	80.5	84.2	89.9	100.9	113.5	120.2	126.3	133.5
20–39 years	359	100.0	1.02	71.4	77.1	80.2	86.3	97.7	111.6	119.3	125.7	134.4
40–59 years	455	104.3	0.87	78.5	83.2	87.2	90.9	102.6	114.9	122.2	127.4	134.5
60 years and over	363	103.4	0.96	80.5	84.2	87.3	92.7	102.3	113.0	119.2	123.2	130.1
Non-Hispanic Asian												
20 years and over	652	85.3	0.56	69.5	72.0	73.5	77.1	83.5	92.4	97.3	101.2	106.3
20–39 years	246	81.6	0.73	66.2	69.5	70.9	73.6	79.8	87.1	92.5	96.4	102.2
40–59 years	248	87.3	0.71	71.9	73.8	75.8	79.2	85.3	93.4	99.1	102.9	108.5
60 years and over	158	88.5	0.94	71.4	76.1	78.6	81.5	86.9	95.0	99.2	103.6	106.8
Hispanic[2]												
20 years and over	1,115	97.3	0.77	75.0	78.7	81.9	86.2	95.5	106.8	112.7	117.0	126.0
20–39 years	390	95.0	1.16	73.7	76.1	78.6	83.7	92.0	104.2	109.8	116.9	127.0
40–59 years	406	99.0	0.83	78.4	81.2	83.5	88.8	97.3	108.5	113.2	116.6	125.0
60 years and over	319	100.7	0.84	80.5	84.0	86.3	91.3	99.0	108.9	115.2	119.8	125.1
Mexican American												
20 years and over	585	98.7	0.96	75.9	80.3	83.5	87.5	96.7	108.4	113.9	119.5	126.7
20–39 years	230	96.4	1.47	74.1	77.4	80.4	85.0	93.9	106.0	111.0	119.4	127.7
40–59 years	213	100.7	0.93	80.5	83.7	86.4	90.4	98.8	110.2	113.7	116.5	123.3
60 years and over	142	*102.1	1.41	*78.5	*83.5	*85.2	*90.5	*101.5	*112.3	*120.0	*122.9	*126.4

* Estimate does not meet standards of reliability or precision based on less than 12 degrees of freedom.

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

NOTE: Data exclude pregnant females.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 20. Waist circumference in centimeters for males aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	5,018	101.5	0.39	78.2	82.3	85.6	90.4	100.3	110.5	116.8	121.2	129.5
20–29 years	914	93.6	1.03	73.5	75.8	77.8	81.3	89.5	102.4	110.5	115.3	126.0
30–39 years	889	99.5	0.57	79.4	82.5	85.3	89.1	97.0	107.2	114.7	118.9	127.5
40–49 years	842	102.8	0.48	83.0	87.0	89.4	92.8	101.1	109.5	115.4	120.9	128.6
50–59 years	832	104.3	0.60	82.8	87.3	90.3	94.3	103.5	113.0	117.9	121.4	131.3
60–69 years	840	106.8	1.01	83.7	87.6	90.8	96.0	105.6	116.4	122.5	127.5	133.2
70–79 years	453	106.2	0.75	85.6	91.5	93.6	98.3	105.3	113.8	118.2	122.1	127.3
80 years and over	248	103.6	0.74	83.1	88.5	92.6	97.0	103.0	110.3	115.3	118.0	122.6
Non-Hispanic white												
20 years and over	2,010	102.8	0.47	79.7	84.3	87.1	92.1	101.4	111.9	118.0	121.9	129.7
20–39 years	701	96.6	1.10	76.7	79.3	81.3	85.0	93.5	104.8	113.3	118.4	125.8
40–59 years	639	104.9	0.59	85.4	89.2	91.7	95.5	103.7	112.5	118.4	121.4	129.9
60 years and over	670	107.3	0.75	85.0	90.5	93.7	98.5	106.5	115.7	121.0	125.8	131.3
Non-Hispanic black												
20 years and over	1,164	98.7	0.57	73.7	76.6	79.5	85.0	97.0	109.4	115.7	121.5	132.2
20–39 years	390	93.7	0.95	72.2	73.9	75.5	79.0	90.8	105.5	112.0	116.1	125.5
40–59 years	381	101.9	0.99	75.3	80.6	83.9	89.5	100.1	111.1	118.5	125.5	136.2
60 years and over	393	103.0	1.01	79.4	85.3	87.3	92.7	102.1	111.1	119.1	123.2	132.3
Non-Hispanic Asian												
20 years and over	636	90.4	0.47	73.9	76.7	79.1	82.9	90.2	97.0	101.2	103.9	107.6
20–39 years	250	88.7	0.87	70.6	74.6	76.3	79.4	87.2	96.0	102.5	104.8	110.3
40–59 years	236	91.4	0.41	77.2	79.7	82.2	85.6	91.1	96.5	100.2	101.7	105.9
60 years and over	150	92.7	0.71	74.3	81.2	84.0	86.2	93.4	98.3	101.8	102.9	107.4
Hispanic[2]												
20 years and over	1,051	100.8	0.76	79.1	83.9	86.9	90.8	100.0	108.4	114.5	118.8	127.6
20–39 years	377	99.2	1.09	76.9	81.4	84.0	88.6	97.3	107.6	114.4	117.4	128.9
40–59 years	373	102.3	0.87	83.5	87.2	89.6	93.2	101.3	108.9	114.3	118.5	126.1
60 years and over	301	103.8	0.88	86.6	89.6	91.8	95.1	101.6	110.4	116.6	120.3	125.6
Mexican American												
20 years and over	604	101.9	0.85	79.7	85.2	87.9	92.0	100.8	109.2	116.3	120.1	128.1
20–39 years	228	100.5	1.33	77.8	82.5	85.2	89.9	99.0	108.8	115.9	120.1	128.9
40–59 years	223	103.0	0.96	85.3	88.6	90.9	93.8	101.9	108.9	115.9	119.5	125.9
60 years and over	153	105.5	1.07	85.1	89.7	93.7	97.0	102.5	112.8	118.5	120.7	127.1

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 21. Sagittal abdominal diameter in centimeters for children and adolescents aged 8–19 years and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Centimeters										
8 years	197	14.2	0.18	11.6	12.0	12.4	12.7	13.4	15.2	16.3	17.0	18.4
9 years	211	14.4	0.18	11.7	12.1	12.4	12.9	14.0	15.0	16.3	17.8	19.6
10 years	199	15.4	0.31	12.1	12.4	12.7	13.1	14.5	17.6	18.4	19.7	20.8
11 years	182	16.7	0.31	12.6	13.1	13.5	14.1	15.8	18.6	19.7	21.3	22.9
12 years	169	16.3	0.31	12.3	13.3	13.6	14.2	15.7	17.2	19.2	20.6	21.9
13 years	169	17.5	0.34	13.6	14.1	14.4	15.1	16.8	19.4	20.4	21.2	23.6
14 years	175	17.7	0.30	14.1	14.3	14.7	15.3	16.8	19.0	21.7	22.1	25.0
15 years	152	18.3	0.34	†	14.7	15.3	16.0	17.3	19.7	21.0	22.3	26.9
16 years	173	18.8	0.24	15.1	15.4	15.7	16.3	17.4	20.9	21.8	23.1	25.8
17 years	143	18.8	0.41	14.9	15.4	15.6	16.3	18.0	19.9	21.5	23.9	26.2
18 years	156	19.6	0.41	†	15.8	16.1	16.9	18.7	21.4	22.6	23.8	26.3
19 years	142	19.4	0.41	15.6	15.9	16.2	16.9	18.4	20.4	23.4	24.6	27.6
Female												
8 years	177	14.4	0.21	11.3	11.9	12.0	12.5	13.8	15.3	17.2	17.5	18.9
9 years	198	15.5	0.28	11.8	12.2	12.5	12.9	14.8	17.2	18.6	19.8	21.7
10 years	182	15.5	0.28	11.5	12.4	12.7	13.5	14.9	17.0	18.2	18.7	21.1
11 years	221	16.4	0.28	12.5	13.1	13.3	13.8	15.5	18.3	19.9	20.8	22.7
12 years	163	17.2	0.32	13.2	13.9	14.2	14.5	16.5	19.0	20.8	21.9	23.3
13 years	156	17.1	0.33	13.7	13.9	14.6	14.9	16.0	18.1	20.5	21.5	22.8
14 years	162	17.4	0.30	13.9	14.5	14.9	15.3	16.5	19.0	20.9	21.4	22.5
15 years	145	18.1	0.45	13.4	14.6	15.0	15.6	17.1	20.0	22.2	23.1	24.4
16 years	179	18.6	0.49	14.4	14.6	14.9	15.9	17.6	20.2	22.5	24.7	28.1
17 years	132	18.9	0.34	14.8	15.0	15.4	16.0	17.7	21.7	23.1	23.5	25.1
18 years	150	18.7	0.46	14.6	15.0	15.6	16.2	17.7	19.9	22.1	23.0	26.5
19 years	143	19.1	0.38	14.6	15.0	15.4	16.1	18.2	20.6	23.1	25.4	28.3

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

NOTE: Data exclude pregnant females.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 22. Sagittal abdominal diameter in centimeters for females aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	4,954	21.9	0.10	15.8	16.6	17.2	18.4	21.2	24.7	26.7	28.1	30.3
20–29 years	788	20.2	0.21	15.0	15.7	16.1	16.9	19.1	22.7	25.2	26.6	28.6
30–39 years	862	21.4	0.17	15.5	16.4	16.9	17.7	20.4	24.3	26.2	27.4	29.9
40–49 years	927	22.0	0.24	15.8	16.5	16.9	18.4	21.2	24.9	26.8	28.0	30.9
50–59 years	870	22.9	0.23	16.5	17.4	18.1	19.3	22.4	25.7	27.9	29.8	31.9
60–69 years	827	22.7	0.16	17.1	17.9	18.4	19.5	22.3	25.3	27.1	28.6	30.0
70–79 years	443	23.1	0.23	16.9	18.4	19.1	20.0	23.1	25.7	27.3	28.4	29.8
80 years and over	237	21.6	0.25	16.5	17.5	17.9	19.2	21.3	23.7	24.8	26.2	27.5
Non-Hispanic white												
20 years and over	1,971	21.8	0.13	15.8	16.6	17.1	18.2	21.1	24.4	26.6	27.9	30.1
20–39 years	622	20.5	0.19	15.2	15.9	16.4	17.0	19.2	22.7	25.5	26.8	29.1
40–59 years	655	22.2	0.22	16.1	16.6	17.1	18.5	21.5	24.9	27.1	28.9	31.8
60 years and over	694	22.5	0.16	17.0	17.9	18.4	19.6	22.1	24.8	26.7	27.7	29.4
Non-Hispanic black												
20 years and over	1,140	24.1	0.13	17.4	18.8	19.5	20.8	23.8	26.8	28.5	29.9	31.6
20–39 years	349	23.2	0.23	16.6	17.8	18.6	19.9	22.6	26.1	27.9	28.7	30.8
40–59 years	450	24.6	0.23	18.0	19.3	20.1	21.1	24.3	27.4	29.3	30.8	32.0
60 years and over	341	24.6	0.24	18.4	19.3	20.0	21.6	24.5	27.2	28.8	29.9	31.6
Non-Hispanic Asian												
20 years and over	634	18.9	0.17	14.6	15.1	15.7	16.5	18.2	20.6	22.1	23.6	24.9
20–39 years	235	18.0	0.18	14.2	14.7	15.1	15.8	17.4	19.5	20.9	21.7	22.7
40–59 years	248	19.3	0.27	15.0	15.6	15.9	16.8	18.5	21.0	23.2	24.1	25.5
60 years and over	151	20.0	0.28	15.1	16.2	16.9	18.0	19.3	21.6	23.3	24.2	26.3
Hispanic[2]												
20 years and over	1,075	22.0	0.20	16.1	16.9	17.7	18.9	21.4	24.7	26.4	27.6	29.4
20–39 years	376	21.1	0.29	15.5	16.3	16.9	17.9	20.4	23.9	25.5	26.5	28.3
40–59 years	397	22.7	0.24	17.0	17.7	18.6	19.8	22.0	25.4	27.1	28.3	30.0
60 years and over	302	23.2	0.26	17.6	18.6	19.1	20.0	22.8	25.9	27.3	28.8	30.0
Mexican American												
20 years and over	567	22.3	0.26	16.2	17.2	17.9	19.2	21.7	24.9	26.7	27.7	29.7
20–39 years	221	21.4	0.37	15.5	16.4	17.0	18.3	20.7	24.3	25.6	26.6	28.4
40–59 years	210	23.1	0.26	17.4	17.9	19.1	20.2	22.5	25.7	27.4	28.2	29.8
60 years and over	136	*23.6	0.40	*17.4	*18.6	*19.3	*20.2	*23.0	*26.8	*28.8	*29.3	*30.5

* Estimate does not meet standards of reliability or precision based on less than 12 degrees of freedom.

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

NOTE: Data exclude pregnant females.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 23. Sagittal abdominal diameter in centimeters for males aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	4,962	23.3	0.11	17.3	18.1	18.8	20.1	22.8	25.9	27.6	29.0	31.1
20–29 years	912	21.2	0.26	16.0	16.8	17.3	17.9	19.9	23.3	25.7	26.8	29.2
30–39 years	886	22.7	0.15	17.4	18.2	18.7	19.8	22.0	24.9	27.1	28.2	30.0
40–49 years	836	23.8	0.15	18.4	19.1	19.9	20.9	23.3	25.9	28.0	29.5	31.3
50–59 years	821	24.1	0.17	18.2	19.1	19.8	21.2	23.6	26.7	28.1	29.7	31.7
60–69 years	831	24.6	0.30	17.9	19.1	20.0	21.4	24.2	27.1	29.3	30.8	32.9
70–79 years	442	24.6	0.22	18.5	19.9	20.8	22.0	24.5	26.8	28.4	29.7	31.3
80 years and over	234	23.8	0.24	18.5	19.7	20.3	21.4	23.4	25.8	27.2	28.2	29.3
Non-Hispanic white												
20 years and over	1,981	23.5	0.14	17.4	18.4	19.0	20.3	23.0	26.1	27.9	29.2	31.2
20–39 years	700	21.8	0.28	16.5	17.4	17.8	18.7	21.1	23.9	26.2	27.7	29.7
40–59 years	632	24.2	0.17	18.5	19.3	20.2	21.3	23.6	26.5	28.3	29.7	31.5
60 years and over	649	24.7	0.22	18.2	19.5	20.3	21.6	24.5	26.9	28.8	30.1	32.1
Non-Hispanic black												
20 years and over	1,150	23.5	0.14	17.0	17.7	18.5	19.6	22.8	26.3	28.3	29.8	32.4
20–39 years	388	22.0	0.21	16.5	17.1	17.4	18.5	21.0	25.1	26.4	28.1	30.3
40–59 years	374	24.4	0.26	17.7	18.8	19.5	20.7	23.7	27.1	29.5	30.5	33.2
60 years and over	388	24.8	0.28	17.9	19.6	20.5	21.7	24.3	27.7	29.1	30.7	32.8
Non-Hispanic Asian												
20 years and over	635	20.5	0.15	16.0	16.7	17.3	18.2	20.3	22.4	23.6	24.4	25.6
20–39 years	250	19.9	0.24	15.4	16.3	16.7	17.4	19.1	21.9	23.6	24.5	25.8
40–59 years	236	20.7	0.14	16.4	17.4	17.8	18.9	20.7	22.3	23.3	23.9	25.1
60 years and over	149	21.5	0.22	16.1	17.5	18.6	19.6	21.8	23.0	24.3	24.9	25.7
Hispanic[2]												
20 years and over	1,041	23.1	0.20	17.1	18.2	19.1	20.3	22.8	25.4	27.0	28.1	30.3
20–39 years	376	22.6	0.30	16.7	17.7	18.3	19.6	22.1	25.1	26.6	27.9	29.5
40–59 years	369	23.6	0.21	17.8	19.1	20.0	21.1	23.3	25.6	27.1	28.2	30.4
60 years and over	296	24.1	0.25	18.9	19.6	20.2	21.5	23.5	26.3	27.9	28.7	30.7
Mexican American												
20 years and over	600	23.4	0.23	17.4	18.5	19.5	20.6	23.0	25.6	27.5	28.7	30.5
20–39 years	227	22.9	0.39	16.7	17.9	18.8	19.8	22.5	25.4	27.0	28.3	29.5
40–59 years	221	23.9	0.22	18.4	19.8	20.5	21.5	23.5	25.7	27.5	29.0	30.7
60 years and over	152	24.5	0.31	18.4	19.7	20.3	21.6	24.2	27.2	28.2	29.1	31.6

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 24. Midarm circumference in centimeters for children and adolescents aged 2 months through 19 years and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Centimeters										
2–5 months	93	14.1	0.11	12.1	12.4	12.8	13.2	14.1	14.9	15.3	15.6	16.5
6–8 months	103	14.8	0.12	13.1	13.2	13.3	13.9	14.8	15.5	16.1	16.2	16.4
9–11 months	95	15.4	0.15	13.3	13.8	14.2	14.5	15.3	16.2	16.5	16.7	17.3
1 year	228	15.5	0.08	13.6	14.2	14.4	14.9	15.4	16.1	16.7	16.9	17.3
2 years	227	16.2	0.09	14.5	14.8	15.1	15.4	16.1	16.7	17.1	17.5	18.6
3 years	214	16.6	0.11	14.9	15.2	15.5	15.9	16.4	17.4	17.9	18.1	18.4
4 years	217	17.3	0.10	15.2	15.5	15.8	16.1	16.9	18.1	18.9	19.2	20.8
5 years	184	18.1	0.21	15.4	15.8	16.3	16.8	17.6	18.9	19.7	20.3	22.6
6 years	238	18.8	0.20	15.7	16.5	16.8	17.4	18.3	19.5	20.8	21.2	22.7
7 years	228	20.0	0.21	16.5	16.9	17.1	18.0	19.1	21.0	22.9	24.8	26.4
8 years	223	20.9	0.23	16.9	17.4	17.9	18.4	20.3	22.8	24.2	25.2	26.6
9 years	216	21.4	0.30	17.1	17.7	17.8	18.9	20.6	22.9	24.8	26.2	28.2
10 years	199	22.9	0.45	17.6	18.7	19.1	19.9	21.9	25.4	27.2	28.7	29.9
11 years	182	25.2	0.42	19.2	20.0	20.4	21.7	24.9	27.9	29.6	30.6	32.6
12 years	173	25.4	0.45	20.0	20.7	21.4	22.2	24.7	27.5	29.5	31.4	34.1
13 years	170	27.5	0.42	21.2	22.0	22.8	24.0	26.6	30.4	32.2	34.0	35.1
14 years	177	28.3	0.33	21.8	23.8	24.0	25.2	27.6	29.8	33.2	35.0	37.3
15 years	153	29.7	0.50	22.4	23.8	24.5	26.0	28.7	33.1	35.2	35.7	39.8
16 years	174	30.8	0.33	24.6	25.7	26.0	27.1	30.2	33.8	35.6	36.4	39.3
17 years	144	30.7	0.47	24.3	25.1	26.2	27.5	30.4	32.9	34.6	37.1	38.3
18 years	157	32.8	0.70	26.0	26.5	27.5	28.9	32.0	34.9	37.8	39.5	42.1
19 years	142	32.1	0.53	25.4	25.9	27.2	28.6	31.3	34.7	37.0	39.4	42.9
Female												
2–5 months	113	13.6	0.10	11.5	12.1	12.3	12.9	13.5	14.3	14.7	14.9	15.2
6–8 months	90	14.5	0.13	12.8	13.1	13.2	13.7	14.4	15.0	15.5	15.8	†
9–11 months	104	15.3	0.19	13.2	13.8	13.9	14.4	15.2	16.3	16.7	16.9	†
1 year	215	15.6	0.10	13.5	14.0	14.3	14.7	15.6	16.3	16.7	17.0	17.6
2 years	267	16.2	0.10	14.4	14.6	14.8	15.2	16.1	16.9	17.4	17.7	18.3
3 years	184	16.8	0.15	14.6	15.0	15.3	15.8	16.5	17.4	18.1	18.7	19.4
4 years	196	17.5	0.19	15.0	15.4	15.7	16.2	17.3	18.5	19.0	19.5	21.3
5 years	171	18.1	0.17	15.5	15.9	16.2	16.8	17.7	18.9	19.4	20.8	22.6
6 years	211	19.1	0.26	15.7	16.2	16.7	17.3	18.6	20.2	22.1	23.0	23.6
7 years	204	19.9	0.30	16.0	16.7	17.1	17.7	19.0	21.5	22.6	24.8	26.0
8 years	192	21.3	0.24	17.4	17.9	18.1	18.8	20.5	23.4	24.4	25.0	26.8
9 years	201	23.0	0.31	17.8	18.7	19.3	20.0	22.0	25.0	27.2	28.3	30.2
10 years	182	23.5	0.41	17.5	18.6	19.4	20.6	23.2	25.7	27.7	28.5	29.7
11 years	226	24.6	0.37	18.9	19.4	20.3	21.5	23.7	27.1	28.9	30.6	32.2
12 years	164	26.5	0.50	19.9	21.0	21.6	22.8	25.5	29.5	31.7	33.0	36.5
13 years	157	26.0	0.52	20.4	21.1	21.7	23.1	25.2	28.7	30.5	31.8	34.0
14 years	164	27.3	0.54	21.2	22.0	22.7	24.2	25.7	30.4	32.7	34.0	34.9
15 years	148	28.5	0.70	22.1	23.9	24.3	24.8	27.6	30.4	34.0	35.1	37.9
16 years	180	28.8	0.53	23.0	24.3	24.8	25.4	27.1	31.0	34.4	37.0	39.6
17 years	134	29.4	0.48	22.9	24.1	24.4	25.9	27.8	32.5	34.3	35.8	36.6
18 years	153	29.4	0.80	21.8	24.2	25.2	25.6	28.1	31.2	34.1	36.7	†
19 years	149	30.0	0.63	23.1	24.1	24.8	25.8	28.3	32.6	36.4	38.8	42.6

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

NOTE: Data exclude pregnant females.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 25. Midarm circumference in centimeters for females aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	5,191	32.2	0.12	24.6	25.9	26.9	28.3	31.4	35.4	37.7	39.6	42.3
20–29 years	821	31.4	0.26	24.1	24.9	26.0	27.2	30.4	34.5	37.5	39.4	41.6
30–39 years	892	32.7	0.24	25.1	26.5	27.4	28.6	31.6	35.6	38.2	40.3	43.4
40–49 years	952	32.7	0.25	25.4	26.5	27.4	28.5	32.0	36.0	38.0	39.7	43.1
50–59 years	898	32.8	0.28	25.2	26.1	27.3	28.8	31.9	36.0	38.9	40.7	42.8
60–69 years	863	32.4	0.23	24.7	26.4	27.6	28.7	31.9	35.4	37.4	38.7	41.3
70–79 years	484	32.1	0.31	24.8	26.3	27.3	28.4	31.5	35.1	37.2	39.4	42.1
80 years and over	281	29.1	0.27	22.5	23.7	24.5	26.0	29.1	31.9	33.3	34.1	34.9
Non-Hispanic white												
20 years and over	2,070	32.0	0.16	24.6	25.9	26.8	28.3	31.2	35.0	37.4	39.3	41.9
20–39 years	640	31.9	0.22	24.6	25.8	26.5	28.0	30.7	34.8	37.7	39.4	42.2
40–59 years	676	32.4	0.25	25.2	26.2	27.1	28.5	31.6	35.5	38.0	40.0	42.5
60 years and over	754	31.6	0.25	23.9	25.6	26.7	28.3	31.1	34.6	36.2	38.0	40.3
Non-Hispanic black												
20 years and over	1,193	34.8	0.15	25.6	27.5	28.7	30.6	34.2	38.1	40.9	42.6	45.6
20–39 years	360	34.6	0.29	24.5	26.6	28.0	30.3	34.2	38.1	40.9	42.3	45.4
40–59 years	465	35.4	0.24	26.7	28.2	29.3	31.3	34.8	38.7	41.7	43.8	46.3
60 years and over	368	34.0	0.31	25.8	27.3	28.5	30.0	33.5	36.9	39.7	41.3	44.0
Non-Hispanic Asian												
20 years and over	657	28.4	0.18	23.2	24.0	24.6	25.5	27.9	30.6	32.4	33.2	35.0
20–39 years	247	27.7	0.26	22.7	23.5	24.0	25.0	27.0	29.8	32.1	33.0	34.3
40–59 years	250	29.2	0.30	24.0	24.8	25.3	26.5	28.5	31.1	33.1	34.1	36.8
60 years and over	160	28.5	0.27	23.3	24.3	24.8	26.0	28.2	30.6	31.6	32.4	34.1
Hispanic[2]												
20 years and over	1,129	32.6	0.21	25.4	26.7	27.7	29.1	31.9	35.5	37.6	39.0	41.4
20–39 years	395	32.2	0.38	24.9	26.4	27.3	28.7	31.4	34.9	37.4	39.2	41.2
40–59 years	409	33.1	0.27	25.8	27.3	28.1	29.3	32.4	36.3	37.9	39.0	41.9
60 years and over	325	32.5	0.25	24.9	26.6	27.5	29.2	32.1	35.0	37.0	38.6	40.9
Mexican American												
20 years and over	592	33.0	0.29	25.7	27.2	28.1	29.4	32.1	36.0	38.4	39.8	41.7
20–39 years	231	32.5	0.50	25.4	26.6	27.7	29.0	31.6	34.9	38.5	39.8	41.3
40–59 years	215	33.8	0.28	27.1	28.0	28.8	29.7	33.3	36.7	38.4	39.5	42.4
60 years and over	146	*33.0	0.36	*24.7	*26.1	*27.9	*29.5	*32.8	*36.2	*37.8	*39.7	*41.5

* Estimate does not meet standards of reliability or precision based on less than 12 degrees of freedom.

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

NOTE: Data exclude pregnant females.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 26. Midarm circumference in centimeters for males aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	5,059	34.3	0.08	27.7	28.9	29.8	31.2	33.9	36.8	38.3	39.5	41.7
20–29 years	917	33.7	0.28	26.8	28.0	28.7	30.2	33.2	36.7	38.4	39.5	42.4
30–39 years	892	35.0	0.16	28.5	29.8	30.5	31.9	34.6	37.4	39.2	40.3	42.4
40–49 years	849	35.3	0.15	29.0	30.5	31.2	32.6	35.1	37.4	38.9	40.0	42.2
50–59 years	836	34.4	0.19	28.1	29.3	30.0	31.7	34.2	37.0	38.2	39.5	41.7
60–69 years	850	34.0	0.25	28.1	29.2	29.9	31.0	33.8	36.1	38.0	39.4	41.7
70–79 years	460	32.8	0.17	26.7	27.9	29.1	30.5	32.7	35.0	36.4	37.7	39.1
80 years and over	255	30.9	0.24	24.9	26.9	27.5	28.7	30.7	33.0	34.3	35.6	36.7
Non-Hispanic white												
20 years and over	2,030	34.3	0.10	27.9	29.1	29.9	31.4	34.0	36.8	38.2	39.4	41.6
20–39 years	703	34.2	0.26	27.7	28.6	29.5	30.9	33.7	36.9	38.5	39.7	42.1
40–59 years	645	35.0	0.19	28.6	29.8	31.0	32.4	34.9	37.2	38.6	39.5	41.6
60 years and over	682	33.5	0.19	27.4	28.6	29.5	30.7	33.0	35.6	37.4	38.4	40.4
Non-Hispanic black												
20 years and over	1,174	35.2	0.16	27.0	28.5	29.8	31.4	35.0	38.5	40.3	41.8	44.1
20–39 years	390	35.1	0.35	26.9	28.2	29.3	31.2	34.8	38.7	40.4	41.7	44.2
40–59 years	383	36.0	0.25	27.5	29.5	30.6	32.1	35.5	39.3	41.1	42.7	44.7
60 years and over	401	33.7	0.32	26.0	27.9	29.1	30.4	33.4	36.5	38.4	39.9	41.7
Non-Hispanic Asian												
20 years and over	641	31.3	0.17	25.7	27.1	27.9	29.0	30.9	33.5	34.8	35.9	37.4
20–39 years	251	31.9	0.32	25.5	26.7	27.6	28.9	31.4	34.5	36.1	37.0	38.5
40–59 years	238	31.3	0.20	26.8	28.0	28.6	29.5	30.9	33.0	34.0	34.8	36.3
60 years and over	152	29.9	0.23	25.2	26.2	26.8	28.2	29.6	31.6	32.6	33.6	35.0
Hispanic[2]												
20 years and over	1,053	34.4	0.18	28.3	29.6	30.5	31.7	34.2	36.7	38.1	39.2	41.1
20–39 years	378	34.7	0.28	28.0	29.6	30.8	31.9	34.5	37.2	38.7	39.8	41.7
40–59 years	373	34.5	0.19	29.1	30.3	31.0	32.1	34.3	36.3	37.7	38.3	40.8
60 years and over	302	32.6	0.23	27.2	28.4	29.2	30.3	32.2	34.7	36.0	37.2	39.1
Mexican American												
20 years and over	606	34.5	0.16	28.5	30.1	30.9	32.0	34.3	36.7	38.1	39.0	41.1
20–39 years	229	34.9	0.28	28.6	30.3	31.1	32.2	34.7	37.2	38.7	39.8	41.7
40–59 years	223	34.4	0.25	29.1	30.4	31.1	32.2	34.3	36.2	37.7	38.2	39.9
60 years and over	154	33.0	0.28	27.1	28.5	29.4	30.5	32.7	35.2	36.5	38.0	39.5

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 27. Upper arm length in centimeters for children and adolescents aged 2 months through 19 years and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Centimeters										
2–5 months	93	12.7	0.12	10.7	11.1	11.8	11.0	12.6	13.3	13.7	13.9	14.1
6–8 months	103	13.8	0.08	†	12.8	12.8	13.0	13.7	14.0	14.6	14.9	15.5
9–11 months	95	14.9	0.10	†	13.8	13.9	14.2	14.9	15.5	15.9	16.0	16.5
1 year	228	16.5	0.10	14.5	15.1	15.4	15.5	16.4	17.4	17.9	18.0	18.5
2 years	226	18.6	0.10	16.9	17.1	17.4	17.7	18.6	19.4	19.8	20.3	20.5
3 years	215	20.2	0.11	18.1	18.4	18.7	19.2	20.0	21.2	21.5	21.7	22.2
4 years	217	21.9	0.11	19.9	20.4	20.5	20.8	21.8	22.9	23.3	23.5	24.2
5 years	184	23.4	0.13	21.0	21.6	21.9	22.6	23.4	24.3	24.7	25.0	25.5
6 years	240	24.7	0.16	21.9	22.5	23.0	23.7	24.6	25.7	26.6	26.8	27.2
7 years	228	26.5	0.14	23.1	24.0	24.5	25.3	26.5	27.6	28.0	28.5	29.2
8 years	224	27.6	0.18	24.4	25.0	25.6	26.3	27.5	28.9	29.5	30.0	30.6
9 years	216	28.9	0.19	25.9	26.5	26.8	27.5	28.9	30.0	30.9	31.3	32.0
10 years	200	30.4	0.21	27.2	28.0	28.4	29.1	30.2	31.5	32.2	32.6	33.9
11 years	182	32.4	0.23	29.0	29.7	29.9	30.5	32.2	33.8	34.8	35.5	†
12 years	173	33.6	0.24	29.9	30.8	31.1	31.8	33.5	35.3	36.0	36.4	37.0
13 years	170	35.6	0.20	31.5	32.5	33.1	33.9	35.8	37.1	38.0	38.5	39.0
14 years	177	36.7	0.23	33.2	33.7	34.4	35.2	36.4	38.0	39.5	39.8	40.9
15 years	153	37.7	0.18	34.1	34.9	35.4	36.2	37.5	38.9	40.0	40.9	41.4
16 years	174	38.2	0.20	34.8	35.5	35.9	36.6	37.9	39.7	40.6	41.3	41.9
17 years	144	38.4	0.29	34.9	35.3	35.9	36.7	38.2	39.4	40.6	41.1	†
18 years	157	38.6	0.25	34.4	35.5	35.8	36.8	38.7	40.0	40.7	41.2	42.0
19 years	142	38.5	0.22	†	35.9	36.1	37.0	38.4	39.9	40.5	41.7	42.6
Female												
2–5 months	113	12.2	0.11	10.7	10.8	11.0	11.5	12.0	12.9	13.2	13.4	†
6–8 months	90	13.3	0.13	11.7	11.9	12.0	12.4	13.1	14.0	14.4	14.7	15.0
9–11 months	104	14.5	0.12	12.8	13.1	13.4	13.6	14.3	15.2	15.5	15.7	†
1 year	215	16.3	0.12	13.9	14.3	14.5	15.0	16.1	17.3	17.8	18.0	18.5
2 years	269	18.3	0.07	16.2	16.5	16.9	17.4	18.0	19.0	19.5	20.0	20.4
3 years	184	19.8	0.09	17.9	18.4	18.5	19.0	19.9	20.4	20.9	21.0	21.8
4 years	195	21.6	0.12	19.4	19.7	19.9	20.4	21.5	22.4	23.0	23.5	24.4
5 years	171	23.1	0.18	20.4	20.9	21.4	21.9	22.9	23.9	24.6	25.2	25.6
6 years	211	24.5	0.17	21.6	22.0	22.4	23.3	24.4	25.6	26.5	26.9	27.9
7 years	204	25.9	0.16	23.4	23.8	24.1	24.7	25.7	27.0	27.7	28.1	29.3
8 years	191	27.6	0.11	24.5	24.8	25.4	26.2	27.5	28.7	29.7	30.0	31.3
9 years	201	29.3	0.23	25.8	26.5	27.0	27.9	28.9	30.7	31.2	31.6	33.4
10 years	182	30.9	0.26	27.1	28.2	28.6	29.2	30.7	32.3	33.3	33.8	†
11 years	226	32.4	0.18	28.6	29.4	29.9	31.0	32.3	33.7	34.5	35.3	35.7
12 years	164	33.8	0.18	30.4	30.8	31.4	32.4	33.6	35.0	36.0	36.2	37.6
13 years	157	34.4	0.19	30.9	31.6	31.9	33.0	34.1	35.8	36.5	36.9	37.6
14 years	164	35.0	0.19	31.8	32.5	33.1	33.7	34.9	36.2	36.7	36.9	37.6
15 years	148	35.4	0.27	31.4	32.5	33.0	33.7	35.4	36.8	37.6	38.4	†
16 years	179	35.4	0.26	32.3	32.7	33.2	33.5	35.4	36.6	37.6	38.8	39.8
17 years	134	35.6	0.24	32.4	32.9	33.1	33.6	35.4	36.7	38.5	38.6	39.3
18 years	153	35.3	0.23	32.1	32.6	32.9	33.9	35.3	36.8	37.5	37.8	38.3
19 years	149	35.9	0.30	31.6	32.9	33.5	34.2	35.7	37.3	38.7	39.0	39.6

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 28. Upper arm length in centimeters for females aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	5,302	35.9	0.07	32.4	33.0	33.6	34.4	35.9	37.2	38.1	38.7	39.6
20–29 years	891	35.7	0.08	32.4	33.1	33.6	34.3	35.5	37.0	37.9	38.5	39.4
30–39 years	930	36.1	0.09	32.4	32.9	33.6	34.5	36.0	37.4	38.5	39.2	40.0
40–49 years	956	36.0	0.10	32.5	33.1	33.7	34.4	35.9	37.3	38.2	39.0	39.9
50–59 years	897	35.9	0.11	32.3	33.0	33.6	34.4	36.0	37.5	38.1	38.6	39.5
60–69 years	863	35.9	0.10	32.3	33.0	33.6	34.4	35.9	37.1	37.9	38.4	39.3
70–79 years	485	35.9	0.11	32.2	33.2	33.7	34.4	35.9	37.2	38.4	39.0	39.8
80 years and over	280	35.4	0.16	31.8	32.6	33.1	34.0	35.4	37.0	37.7	38.1	38.8
Non-Hispanic white												
20 years and over	2,109	36.1	0.08	32.7	33.5	34.0	34.7	36.0	37.3	38.1	38.8	39.5
20–39 years	679	36.2	0.09	32.8	33.6	34.0	34.8	36.0	37.4	38.4	38.9	39.7
40–59 years	677	36.2	0.11	32.8	33.6	34.0	34.7	36.1	37.5	38.2	38.9	39.6
60 years and over	753	36.0	0.09	32.4	33.3	33.9	34.5	35.9	37.1	37.9	38.5	39.3
Non-Hispanic black												
20 years and over	1,226	36.9	0.07	32.9	33.9	34.5	35.3	36.9	38.3	39.2	39.9	40.7
20–39 years	392	36.7	0.12	32.5	33.8	34.3	35.1	36.5	38.1	39.2	39.9	40.7
40–59 years	465	37.1	0.12	33.2	34.2	34.7	35.5	37.0	38.4	39.3	39.9	40.6
60 years and over	369	36.9	0.16	32.9	34.0	34.5	35.1	37.0	38.3	39.2	39.7	41.1
Non-Hispanic Asian												
20 years and over	672	33.8	0.09	30.7	31.5	31.9	32.5	33.7	35.0	35.6	36.0	36.9
20–39 years	260	34.0	0.13	30.8	31.6	32.1	32.7	34.0	35.2	35.8	36.3	36.9
40–59 years	252	33.9	0.14	30.9	31.5	31.9	32.5	33.7	35.0	35.7	36.3	37.2
60 years and over	160	33.3	0.20	30.3	30.8	31.5	32.0	33.2	34.5	35.2	35.6	36.0
Hispanic[2]												
20 years and over	1,148	34.9	0.08	31.5	32.4	32.7	33.4	34.8	36.2	37.0	37.5	38.4
20–39 years	414	35.1	0.12	31.8	32.5	32.9	33.6	35.0	36.3	37.0	37.6	38.5
40–59 years	409	34.7	0.12	31.5	32.1	32.5	33.2	34.6	36.2	37.0	37.5	38.1
60 years and over	325	34.6	0.12	31.2	32.0	32.4	33.2	34.4	35.8	36.7	37.4	38.3
Mexican American												
20 years and over	602	34.9	0.10	31.5	32.3	32.6	33.4	34.8	36.2	37.0	37.5	38.3
20–39 years	240	35.0	0.16	31.5	32.5	32.9	33.5	34.9	36.2	37.0	37.4	38.5
40–59 years	216	34.8	0.14	31.4	32.0	32.5	33.4	34.6	36.3	37.0	37.6	38.0
60 years and over	146	*34.6	0.21	*31.3	*31.9	*32.3	*33.0	*34.3	*35.8	*36.7	*37.7	*38.2

* Estimate does not meet standards of reliability or precision based on less than 12 degrees of freedom.

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 29. Upper arm length in centimeters for males aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	5,059	39.1	0.07	35.2	36.1	36.7	37.5	39.1	40.7	41.5	42.0	43.0
20–29 years	918	38.9	0.10	34.7	35.8	36.3	37.1	38.7	40.5	41.6	42.1	43.0
30–39 years	890	39.1	0.09	35.4	36.1	36.6	37.5	39.0	40.4	41.4	41.9	42.9
40–49 years	848	39.2	0.12	35.3	36.3	36.8	37.6	39.1	40.5	41.5	41.9	43.2
50–59 years	837	39.3	0.12	35.6	36.4	37.0	37.7	39.2	40.8	41.6	42.0	43.1
60–69 years	850	39.4	0.16	35.4	36.2	36.9	37.8	39.3	41.0	41.8	42.4	43.4
70–79 years	461	39.0	0.15	35.0	35.8	36.4	37.3	38.9	40.7	41.4	41.9	42.6
80 years and over	255	39.2	0.18	34.8	35.7	36.3	37.8	39.5	40.9	41.6	42.3	42.9
Non-Hispanic white												
20 years and over	2,030	39.5	0.08	35.9	36.6	37.2	37.9	39.4	40.9	41.7	42.2	43.2
20–39 years	703	39.2	0.11	35.5	36.3	37.0	37.6	39.1	40.6	41.7	42.2	43.0
40–59 years	645	39.6	0.12	36.4	36.9	37.3	38.0	39.5	40.9	41.7	42.2	43.3
60 years and over	682	39.6	0.14	35.8	36.5	37.2	38.0	39.5	41.0	41.9	42.4	43.3
Non-Hispanic black												
20 years and over	1,173	39.6	0.11	35.7	36.4	37.0	37.9	39.6	41.2	42.0	42.8	43.6
20–39 years	389	39.6	0.22	35.7	36.2	36.8	37.7	39.5	41.4	42.3	42.9	43.5
40–59 years	382	39.7	0.12	35.7	36.7	37.2	38.0	39.7	41.2	42.0	42.6	43.7
60 years and over	402	39.5	0.10	35.5	36.5	37.2	37.9	39.5	41.0	41.8	42.4	43.1
Non-Hispanic Asian												
20 years and over	641	37.0	0.12	33.4	34.2	34.7	35.5	36.9	38.4	39.3	39.9	40.5
20–39 years	251	37.3	0.16	33.7	34.4	34.9	35.9	37.3	38.8	39.8	40.0	40.9
40–59 years	238	37.2	0.14	33.7	34.6	35.2	35.6	37.1	38.3	39.2	39.9	40.4
60 years and over	152	36.1	0.18	32.5	33.2	33.9	34.6	36.1	37.5	38.0	38.6	39.5
Hispanic[2]												
20 years and over	1,054	38.1	0.10	34.5	35.3	35.7	36.5	38.0	39.5	40.3	40.9	41.8
20–39 years	378	38.3	0.14	34.8	35.5	36.0	36.7	38.1	39.6	40.4	41.0	41.9
40–59 years	374	38.0	0.14	34.3	35.1	35.5	36.4	38.0	39.4	40.4	40.9	41.8
60 years and over	302	37.4	0.11	34.1	34.9	35.4	36.1	37.2	38.5	39.5	40.0	40.8
Mexican American												
20 years and over	607	38.0	0.12	34.5	35.4	35.8	36.4	37.9	39.5	40.2	40.7	41.6
20–39 years	229	38.1	0.16	34.6	35.4	35.9	36.5	38.0	39.5	40.3	40.9	41.7
40–59 years	224	38.0	0.18	34.5	35.2	35.7	36.4	38.0	39.5	40.2	40.6	41.7
60 years and over	154	37.5	0.12	34.3	35.0	35.4	36.3	37.3	38.5	39.6	40.1	40.7

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 30. Upper leg length in centimeters for children and adolescents aged 8–19 years and number of examined persons, mean, standard error of the mean, and selected percentiles, by sex and age: United States, 2011–2014

Sex and age[1]	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male		Centimeters										
8 years	203	30.7	0.23	27.0	27.8	28.1	28.9	30.6	31.9	32.9	33.5	34.5
9 years	216	31.9	0.18	28.2	28.5	29.1	30.2	32.2	33.2	34.3	34.7	36.1
10 years	198	34.2	0.25	30.2	30.9	31.2	32.4	34.2	35.8	36.4	37.1	38.2
11 years	182	36.2	0.25	32.0	32.5	32.9	34.3	36.0	37.9	38.9	39.7	40.6
12 years	171	37.7	0.29	33.6	34.8	35.2	35.9	37.5	39.5	40.1	40.6	41.2
13 years	168	39.9	0.24	35.6	36.5	37.1	38.1	39.9	41.2	42.4	43.6	44.1
14 years	176	41.2	0.24	37.2	38.2	38.6	39.1	40.8	43.0	44.2	44.5	45.7
15 years	151	42.2	0.22	37.9	38.4	39.0	40.5	42.0	44.2	44.7	45.6	46.0
16 years	173	42.3	0.27	38.6	39.5	39.9	40.7	42.0	43.8	44.9	45.5	46.4
17 years	141	42.7	0.33	38.4	39.6	39.9	40.0	42.8	44.4	45.5	46.4	47.8
18 years	157	42.5	0.34	38.4	38.8	39.4	40.6	42.0	44.4	45.3	46.0	47.9
19 years	140	42.5	0.37	37.6	39.1	39.8	40.3	42.2	44.8	45.9	46.3	†
Female												
8 years	175	30.7	0.18	26.9	27.6	28.3	29.4	30.6	32.2	32.8	33.4	34.4
9 years	201	32.5	0.22	29.1	29.6	30.0	30.7	32.3	34.0	34.9	35.2	36.2
10 years	182	34.5	0.28	30.4	30.8	31.2	32.1	34.5	35.9	37.7	38.0	38.9
11 years	222	36.1	0.19	30.9	32.7	33.5	34.8	36.1	38.0	38.5	39.0	39.7
12 years	164	37.5	0.25	33.3	34.4	34.8	35.7	37.3	38.9	39.7	40.5	42.4
13 years	156	38.3	0.26	33.8	35.6	35.9	36.6	38.2	39.5	40.6	41.2	42.2
14 years	164	38.7	0.25	34.7	35.5	36.4	37.1	38.6	40.1	41.2	41.9	42.9
15 years	147	38.6	0.31	34.3	35.3	35.6	36.5	38.6	40.4	41.2	41.7	42.9
16 years	178	38.7	0.19	34.5	35.3	35.9	37.0	38.8	40.2	41.3	41.5	43.1
17 years	134	39.0	0.27	34.9	35.8	36.8	37.3	38.8	40.5	41.7	41.9	42.4
18 years	152	38.4	0.20	34.7	35.4	35.9	36.4	38.0	39.9	40.6	41.5	43.1
19 years	147	39.0	0.25	34.9	35.2	36.2	36.9	39.2	40.4	41.2	42.1	43.2

† Estimate not shown because the standard error could not be computed due to small sample size.

[1]Age at time of examination.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 31. Upper leg length in centimeters for females aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	5,225	37.1	0.07	31.9	33.1	33.9	35.1	37.1	39.2	40.1	40.9	41.9
20–29 years	886	38.6	0.12	34.2	35.3	36.0	36.9	38.6	40.1	41.0	41.6	43.0
30–39 years	917	38.1	0.10	33.3	34.3	35.0	36.1	38.0	39.9	41.0	41.5	42.8
40–49 years	953	37.4	0.11	32.0	33.2	34.2	35.4	37.2	39.5	40.4	41.1	42.1
50–59 years	884	36.8	0.14	31.8	33.0	33.6	34.9	36.9	38.8	39.5	40.1	41.3
60–69 years	844	35.9	0.15	30.9	32.2	33.1	34.0	35.9	37.9	38.8	39.4	40.4
70–79 years	473	35.4	0.17	30.4	31.2	32.2	33.5	35.4	37.4	38.2	39.0	40.0
80 years and over	268	35.0	0.20	30.5	31.4	32.0	33.0	35.0	37.2	37.9	38.4	39.0
Non-Hispanic white												
20 years and over	2,074	37.2	0.08	32.1	33.4	34.3	35.3	37.3	39.2	40.0	40.7	41.7
20–39 years	671	38.6	0.11	34.4	35.4	36.2	37.0	38.6	40.1	41.0	41.5	42.7
40–59 years	670	37.3	0.11	32.4	33.7	34.6	35.6	37.3	39.4	40.0	40.5	41.5
60 years and over	733	35.8	0.11	31.2	32.2	33.0	34.0	35.9	37.6	38.5	39.1	39.8
Non-Hispanic black												
20 years and over	1,204	38.9	0.09	33.4	34.9	35.8	36.9	39.0	41.0	42.0	42.9	44.1
20–39 years	389	40.0	0.15	35.4	36.3	37.1	38.0	40.0	41.7	43.1	43.8	44.7
40–59 years	460	38.8	0.12	33.2	35.0	35.9	36.9	38.8	40.9	41.8	42.3	43.6
60 years and over	355	37.1	0.16	31.3	33.4	34.0	35.0	37.2	39.0	40.2	41.1	41.8
Non-Hispanic Asian												
20 years and over	666	35.4	0.14	31.1	32.1	32.8	33.7	35.3	37.1	38.0	38.5	39.3
20–39 years	258	36.4	0.16	32.7	33.5	34.0	34.8	36.3	37.9	38.6	39.0	39.9
40–59 years	250	35.3	0.19	31.2	32.1	32.9	33.5	35.1	36.9	37.9	38.5	39.3
60 years and over	158	33.8	0.19	30.2	30.7	31.1	32.2	33.9	35.2	35.9	36.6	37.5
Hispanic[2]												
20 years and over	1,135	35.7	0.16	30.5	31.9	32.6	33.7	35.9	37.9	38.7	39.4	40.4
20–39 years	410	36.9	0.16	32.6	33.7	34.2	35.2	36.7	38.5	39.4	40.0	41.0
40–59 years	407	35.1	0.19	30.6	31.6	32.1	33.2	35.0	37.0	38.0	38.6	39.7
60 years and over	318	33.4	0.21	28.7	29.9	30.2	31.4	33.2	35.4	36.7	37.4	38.2
Mexican American												
20 years and over	594	35.4	0.16	30.2	31.6	32.3	33.5	35.6	37.3	38.3	38.9	39.9
20–39 years	238	36.4	0.14	32.4	33.4	34.1	35.0	36.3	38.0	38.7	39.3	40.0
40–59 years	214	34.8	0.23	30.1	31.1	31.9	32.7	34.7	36.8	37.9	38.5	39.5
60 years and over	142	*32.9	0.32	*27.8	*28.9	*29.9	*30.9	*32.8	*34.8	*36.2	*37.1	*38.0

* Estimate does not meet standards of reliability or precision based on less than 12 degrees of freedom.

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 32. Upper leg length in centimeters for males aged 20 and over and number of examined persons, mean, standard error of the mean, and selected percentiles, by race and Hispanic origin and age: United States, 2011–2014

Race and Hispanic origin and age	Number of examined persons	Mean	Standard error of the mean	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
All racial and Hispanic-origin groups[1]		Centimeters										
20 years and over	5,013	41.2	0.09	36.2	37.2	38.0	39.1	41.1	43.1	44.2	45.0	46.1
20–29 years	912	42.3	0.09	37.5	38.6	39.3	40.2	42.3	44.0	45.1	46.1	47.0
30–39 years	887	41.8	0.10	37.3	38.3	39.2	40.0	41.7	43.6	44.6	45.2	46.3
40–49 years	837	41.3	0.15	36.7	37.6	38.2	39.3	41.1	43.1	44.2	45.0	46.0
50–59 years	832	40.9	0.17	35.8	37.0	37.9	39.0	41.0	42.9	44.1	44.8	45.5
60–69 years	841	40.2	0.26	34.9	36.3	37.0	38.1	40.1	42.4	43.5	44.2	45.4
70–79 years	454	39.2	0.14	34.3	35.5	36.2	37.0	39.2	41.2	42.2	42.9	44.2
80 years and over	250	39.4	0.22	34.5	35.6	36.5	37.3	39.2	41.2	42.4	43.2	44.3
Non-Hispanic white												
20 years and over	2,012	41.3	0.11	36.5	37.5	38.3	39.4	41.3	43.2	44.3	45.0	46.1
20–39 years	701	42.3	0.11	38.0	39.1	39.6	40.4	42.3	43.8	44.9	45.9	46.9
40–59 years	638	41.4	0.16	36.8	37.9	38.5	39.5	41.3	43.1	44.3	45.0	45.7
60 years and over	673	40.0	0.20	35.1	36.3	37.0	38.0	39.9	42.0	43.1	44.0	45.0
Non-Hispanic black												
20 years and over	1,159	42.7	0.11	37.6	38.9	39.4	40.5	42.6	44.7	45.7	46.4	47.6
20–39 years	388	43.6	0.20	38.8	39.9	40.2	41.4	43.6	45.4	46.5	47.3	48.4
40–59 years	377	42.4	0.15	37.8	39.0	39.4	40.4	42.4	44.2	45.3	45.9	47.2
60 years and over	394	41.1	0.16	36.0	37.4	38.0	38.9	41.1	43.1	44.2	44.9	45.9
Non-Hispanic Asian												
20 years and over	637	39.3	0.15	34.5	35.7	36.4	37.2	39.2	41.1	42.1	42.9	44.2
20–39 years	248	40.5	0.16	36.4	37.1	37.9	38.4	40.4	42.1	43.5	44.3	44.8
40–59 years	237	39.0	0.20	34.9	36.1	36.5	37.2	38.9	40.9	41.3	41.9	42.9
60 years and over	152	36.9	0.18	33.0	33.7	34.1	35.2	36.8	38.5	39.5	40.0	40.7
Hispanic[2]												
20 years and over	1,048	40.0	0.09	35.0	36.2	37.0	38.0	40.0	42.0	43.0	43.8	44.6
20–39 years	375	40.8	0.13	36.3	37.4	38.1	39.1	40.6	42.6	43.5	44.2	45.0
40–59 years	372	39.6	0.14	34.7	35.6	36.5	37.7	39.6	41.2	42.5	43.3	44.5
60 years and over	301	37.8	0.16	33.7	34.4	35.0	35.9	37.6	39.4	40.5	41.4	42.6
Mexican American												
20 years and over	602	39.9	0.10	34.8	35.9	36.7	37.9	40.0	41.7	43.0	43.9	44.7
20–39 years	227	40.7	0.17	36.0	37.2	37.8	39.0	40.6	42.4	43.6	44.2	45.0
40–59 years	222	39.3	0.19	34.6	35.4	36.1	37.1	39.2	40.9	42.2	43.0	44.4
60 years and over	153	37.8	0.24	33.7	34.4	35.0	35.8	37.7	39.1	40.4	41.4	42.6

[1]Includes persons of other races.

[2]Includes Mexican-American persons.

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Appendix

Appendix table. Historical summary of published anthropometric reference data

Measurement	Survey years									
	1960–1962[1–3]	1963–1965[4]	1966–1970[5]	1971–1974[6,7]	1976–1980[8]	1988–1994[9]	1999–2002[10]	2003–2006[11]	2007–2010[12]	2011–2014
Weight, height, and length										
Weight	x	x	x	x	x	x	x	x	x	x
Standing height	x	x	x	x	x	x	x	x	x	x
Recumbent length	...	...	...	...	x	x	x	x	x	x
Sitting height	x	x	...	x	x	x	...	...	...	...
Knee height	x	x	...	...	...	x	...	...	...	...
Elbow rest height	x	...	...	...	...	...	...	...	...	...
Popliteal height	x	x	...	...	...	...	...	...	...	...
Thigh clearance height	x	x	...	...	...	...	...	...	...	...
Buttock-knee length	x	x	...	...	...	...	...	...	...	...
Buttock-popliteal length	x	x	...	...	...	...	...	...	...	...
Elbow-wrist length	...	x	...	...	...	...	...	...	...	...
Hand length	...	x	...	...	...	...	...	...	...	...
Upper arm length	...	x	...	...	...	x	x	x	x	x
Upper leg length	...	...	...	...	...	x	x	x	x	x
Foot length	...	x	...	...	...	...	...	...	...	...
Crown-rump length	...	...	...	...	x	...	...	...	...	...
Indices										
Body mass index[13]	...	...	...	...	x	x	x	x	x	x
Skinfolds										
Subscapular skinfold	x	x	x	x	x	x	x	x	x	...
Triceps skinfold	x	x	x	x	x	x	x	x	x	...
Thigh skinfold	...	...	...	...	...	x	...	...	...	...
Suprailiac skinfold	...	...	...	...	...	x	...	...	...	...
Circumferences and breadths										
Head circumference	...	...	...	...	x	x	x	x	x	x
Chest circumference	x	x	...	x	x	...	...	...	...	...
Waist circumference	x	x	...	...	...	x	x	x	x	x
Sagittal abdominal diameter	...	...	...	...	...	...	...	...	...	x
Midarm circumference	x	x	x	x	x	x	x	x	x	x
Midthigh circumference	...	...	...	...	...	x	x	x	...	...
Buttocks circumference	...	x	...	...	...	x	...	...	...	...
Maximal calf circumference	...	...	...	...	...	...	x	x	...	...
Chest breadth	...	x	...	...	...	...	...	...	...	...
Hand breadth	...	x								
Wrist breadth	...	...	...	...	...	x	...	...	...	...
Biacromial breadth	x	...	...	...	...	x	...	...	...	...
Biiliac breadth	...	...	...	...	...	x	...	...	...	...

See footnotes at end of table.

Appendix table. Historical summary of published anthropometric reference data—Con.

Measurement	Survey years									
	1960–1962[1–3]	1963–1965[4]	1966–1970[5]	1971–1974[6,7]	1976–1980[8]	1988–1994[9]	1999–2002[10]	2003–2006[11]	2007–2010[12]	2011–2014
Circumferences and breadths—Con.										
Bitrochanteric breadth . .	. . .	. . .	. . .	x	x	. . .	. . .	. . .	. . .	. . .
Elbow breadth	. . .	. . .	. . .	x	x	x	. . .	. . .	. . .	. . .
Elbow-elbow breadth . . .	x	x	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Seat breadth	x	x	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Foot breadth	. . .	x	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

[1]Stoudt HW, Damon A, McFarland R, Roberts J. Weight, height, and selected body dimensions of adults. National Center for Health Statistics. Vital Health Stat 11(8). 1965. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_008.pdf.

[2]Stoudt HW, Damon A, McFarland RA, Roberts J. Skinfolds, body girths, biacromial diameter, and selected anthropometric indices of adults: United States, 1960–1962. National Center for Health Statistics. Vital Health Stat 11(35). 1970. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_035acc.pdf.

[3]Roberts J. Weight by height and age of adults: United States, 1960–1962. National Center for Health Statistics. Vital Health Stat 11(14). 1966. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_014acc.pdf.

[4]Malina RM, Hamill PVV, Lemeshow S. Selected body measurements of children 6–11 years: United States. National Center for Health Statistics. Vital Health Stat 11(123). 1973. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_123acc.pdf.

[5]Hamill PVV, Johnston FE, Lemeshow S. Height and weight of youths 12–17 years: United States. National Center for Health Statistics. Vital Health Stat 11(124). 1973. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_124.pdf.

[6]Abraham S, Johnson CL, Najjar MF. Weight and height of adults 18–74 years of age: United States, 1971–74. National Center for Health Statistics. Vital Health Stat 11(211). 1979. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_211.pdf.

[7]Johnson CL, Fulwood R, Abraham S, Bryner JD. Basic data on anthropometric measurements and angular measurements of the hip and knee joints for selected age groups 1–74 years of age: United States, 1971–1975. National Center for Health Statistics. Vital Health Stat 11(219). 1981. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_219.pdf.

[8]Najjar MF, Rowland M. Anthropometric reference data and prevalence of overweight: United States, 1976–80. National Center for Health Statistics. Vital Health Stat 11(238). 1987. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_238.pdf.

[9]McDowell MA, Fryar CD, Ogden CL. Anthropometric reference data for children and adults: United States, 1988–1994. National Center for Health Statistics. Vital Health Stat 11(249). 2009. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_249.pdf.

[10]McDowell MA, Fryar CD, Hirsch R, Ogden CL. Anthropometric reference data for children and adults: U.S. population, 1999–2002. Advance data from vital and health statistics; no 361. Hyattsville, MD: National Center for Health Statistics. 2005. Available from: http://www.cdc.gov/nchs/data/ad/ad361.pdf.

[11]McDowell MA, Fryar CD, Ogden CL, Flegal KM. Anthropometric reference data for children and adults: United States, 2003–2006. National health statistics reports; no 10. Hyattsville, MD: National Center for Health Statistics. 2008. Available from: http://www.cdc.gov/nchs/data/nhsr/nhsr010.pdf.

[12]Fryar CD, Gu Q, Ogden CL. Anthropometric reference data for children and adults: United States, 2007–2010. National Center for Health Statistics. Vital Health Stat 11(252). 2012. Available from: http://www.cdc.gov/nchs/data/series/sr_11/sr11_252.pdf.

[13]Body mass index (BMI) is calculated as: BMI = weight(kilograms)/height(meters^2).

NOTE: Terminology for a particular measure may have changed across survey years.

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Series 12. **Data From the Institutionalized Population Surveys**
The last Series 12 report was published in 1974; these reports were included in Series 13, and as of 2015 are in Series 3.

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Reports present statistics on health resources and use of health care resources based on data collected from health care providers and provider records. As of 2015, these reports are included in Series 3.

Series 14. **Data on Health Resources: Manpower and Facilities**
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Reports contain statistics on health and health-related topics from surveys that are not a part of the continuing data systems of the National Center for Health Statistics. The last Series 15 report was published in 2002; these reports are now included in Series 3.

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Series 21. **Data on Natality, Marriage, and Divorce**
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Series 22. **Data From the National Natality and Mortality Surveys**
The last Series 22 report was published in 1973. Reports from sample surveys of vital records were included in Series 20 or 21, and are now included in Series 3.

Series 23. **Data From the National Survey of Family Growth**
Reports contain statistics on factors that affect birth rates, factors affecting the formation and dissolution of families, and behavior related to the risk of HIV and other sexually transmitted diseases. The last Series 23 report was published in 2011; these reports are now included in Series 3.

Series 24. **Compilations of Data on Natality, Mortality, Marriage, and Divorce**
The last Series 24 report was published in 1996. All reports are available online; compilations are no longer needed.

For answers to questions about this report or for a list of reports published in these series, contact:

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DHHS Publication No. 2016–1604, Series 3, No. 39
CS265811