

Prevalence of Underweight Among Children and Adolescents Aged 2–19 Years: United States, 1963–1965 Through 2015–2016

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Underlying health conditions can result in children and adolescents being underweight. In addition, underweight can indicate malnutrition. Results from the 2015–2016 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate that an estimated 3.0% of children and adolescents aged 2–19 years are underweight.

Body mass index (BMI), expressed as weight in kilograms divided by height in meters squared (kg/m^2), is commonly used to classify weight status among children and adolescents. Cutoff criteria are based on the sex-specific BMI-for-age 2000 CDC Growth Charts for the United States (available from: https://www.cdc.gov/growthcharts/cdc_charts.htm). Based on current recommendations from expert committees, children and adolescents with BMI values below the sex- and age-specific 5th percentile of the growth charts are categorized as underweight.

The [Table](#) shows the prevalence of underweight among children and adolescents aged 2–19 years by age and sex, from 1963–1965 through 2015–2016.

NHANES, conducted by the National Center for Health Statistics, is a stratified, multistage probability sample of the civilian noninstitutionalized population of the United States. A household interview and a physical examination are conducted for each survey participant. During the physical examination, conducted in a mobile examination center, height and weight are measured as part of a more comprehensive set of body measurements. These measurements are taken by trained health technicians, using standardized measuring procedures and equipment. Observations for persons missing a valid height or weight measurement and for pregnant females are not included in the data analysis.

For additional information on NHANES methods, visit: <https://wwwn.cdc.gov/nchs/nhanes/analyticguidelines.aspx>.

This *Health E-Stat* supersedes the earlier version, “Prevalence of Underweight Among Children and Adolescents Aged 2–19 Years: United States, 1963–1965 Through 2013–2014,” available from: https://www.cdc.gov/nchs/data/hestat/underweight_child_13_14/underweight_child_13_14.htm.

Table. Prevalence of underweight among children and adolescents aged 2–19 years, by age and sex: United States, 1963–1965 through 2015–2016

Survey period	Sample size (n)	Total	Age group (years)			Sex	
			2–5	6–11	12–19	Boys	Girls
Percent (standard error)							
1963–1965	7,047	---	---	5.8 (0.6)	---	---	---
1966–1970 ¹	6,768	---	---	---	4.6 (0.3)	---	---
1971–1974	7,041	5.1 (0.3)	5.8 (0.5)	5.3 (0.5)	4.7 (0.5)	5.0 (0.3)	5.3 (0.5)
1976–1980	7,351	4.5 (0.3)	5.3 (0.4)	4.2 (0.4)	4.4 (0.4)	5.0 (0.4)	4.1 (0.3)
1988–1994	10,777	4.0 (0.3)	4.3 (0.4)	3.9 (0.6)	3.9 (0.6)	4.2 (0.5)	3.8 (0.5)
1999–2000	4,039	4.2 (0.4)	5.1 (1.3)	4.3 (0.9)	3.7 (0.6)	4.9 (0.9)	3.5 (0.7)
2001–2002	4,261	3.4 (0.3)	2.8 (0.8)	3.4 (0.3)	3.7 (0.6)	3.7 (0.5)	3.1 (0.4)
2003–2004	3,961	3.2 (0.3)	3.7 (1.0)	3.0 (0.7)	3.2 (0.7)	3.6 (0.4)	2.9 (0.5)
2005–2006	4,207	3.2 (0.4)	1.9 (0.4)	2.3 (0.7)	4.5 (0.7)	3.7 (0.7)	2.7 (0.4)
2007–2008	3,249	3.7 (0.4)	3.8 (0.9)	3.0 (0.7)	4.2 (0.6)	3.8 (0.8)	3.6 (0.4)
2009–2010	3,408	3.3 (0.4)	3.1 (0.5)	4.2 (0.7)	2.8 (0.6)	3.3 (0.5)	3.4 (0.5)
2011–2012	3,355	3.5 (0.5)	3.2 (0.7)	3.6 (0.8)	3.6 (0.7)	4.2 (1.1)	2.8 (0.5)
2013–2014	3,523	3.8 (0.4)	3.4 (0.8)	4.8 (1.1)	3.2 (0.8)	3.6 (0.6)	4.0 (0.5)
2015–2016	3,340	3.0 (0.6)	2.3 (0.9)	2.5 (0.6)	3.7 (1.0)	3.6 (1.0)	2.5 (0.6)

--- Data not available. National Health Examination Surveys 1963–1965 and 1966–1970 did not include children aged 2–5 years.

¹Data for 1966–1970 are for adolescents aged 12–17, not 12–19.

NOTES: Underweight is body mass index (BMI) less than the 5th percentile from the sex-specific BMI-for-age 2000 CDC Growth Charts. Pregnant females are excluded from the analysis beginning with 1971–1974. Pregnancy status was not available for 1963–1965 and 1966–1970.

SOURCES: NCHS, National Health Examination Surveys, 1963–1965 and 1966–1970, and National Health and Nutrition Examination Surveys, 1971–1974, 1976–1980, 1988–1994, and 1999–2016.