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## Prevalence of Underweight Among Adults Aged 20 and Over: United States, 1960–1962 Through 2011–2012

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Poor nutrition or underlying health conditions in adults can result in underweight. Results from the 2011–2012 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate that an estimated 1.7% of U.S. adults aged 20 and over are underweight. Body mass index (BMI), expressed as weight in kilograms divided by height in meters squared ( $\text{kg}/\text{m}^2$ ), is commonly used to classify underweight (BMI less than 18.5) among adults aged 20 and over.

The age-specific and age-adjusted prevalence of underweight among adults aged 20 and over is shown in [Table 1](#). Because surveys before 1988 did not include persons over age 74, [Table 2](#) shows age-specific and age-adjusted prevalence estimates of underweight for adults aged 20–74 for all survey periods dating back to 1960.

NHANES, conducted by CDC's National Center for Health Statistics (NCHS), is a 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 pregnant women and for persons missing a valid height or weight measurement were not included in the data analysis.

For additional information on NHANES methods, visit:  
[http://www.cdc.gov/nchs/nhanes/survey\\_methods.htm](http://www.cdc.gov/nchs/nhanes/survey_methods.htm).

**This Health E-Stat supersedes the earlier version below:**

- Prevalence of underweight among adults aged 20 years and over: United States, 1960–1962 through 2007–2010. Available from:  
[http://www.cdc.gov/nchs/data/hestat/underweight\\_adult\\_07\\_10/underweight\\_adult\\_07\\_10.htm](http://www.cdc.gov/nchs/data/hestat/underweight_adult_07_10/underweight_adult_07_10.htm).



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**Table 1. Age-adjusted prevalence of underweight among adults aged 20 and over, by age and sex: United States, selected years 1988–1994 through 2011–2012**

Survey period	Sample (n)	Total <sup>1</sup>	Age (years)			Sex <sup>1</sup>		
			20–39	40–59	60 and over	Men	Women	
			Percent (standard error)					
1988–1994	16,235	2.3 (0.2)	3.0 (0.4)	1.7 (0.3)	2.3 (0.3)	1.1 (0.2)	3.5 (0.3)	
1999–2000	4,117	2.0 (0.2)	2.9 (0.5)	1.3 (0.2)	1.4 (0.4)	1.1 (0.2)	2.7 (0.5)	
2001–2002	4,413	1.9 (0.2)	2.9 (0.5)	0.9 (0.2)	3.0 (0.4)	1.0 (0.3)	2.7 (0.3)	
2003–2004	4,431	1.7 (0.2)	2.8 (0.3)	*1.0 (0.4)	0.8 (0.2)	1.4 (0.3)	2.0 (0.4)	
2005–2006	4,356	1.9 (0.3)	2.4 (0.6)	1.4 (0.4)	1.6 (0.3)	1.2 (0.4)	2.5 (0.4)	
2007–2008	5,550	1.6 (0.3)	1.9 (0.5)	*1.5 (0.5)	1.1 (0.2)	1.0 (0.3)	2.2 (0.4)	
2009–2010	5,926	1.8 (0.3)	2.0 (0.3)	2.1 (0.5)	1.3 (0.2)	1.0 (0.2)	2.6 (0.5)	
2011–2012	5,181	1.7 (0.2)	2.5 (0.4)	0.9 (0.2)	1.6 (0.4)	0.7 (0.1)	2.6 (0.4)	

\* Estimate has a relative standard error greater than 30% and should be used with caution because it does not meet standards of reliability or precision.

<sup>1</sup>Age-adjusted by the direct method to the year 2000 U.S. Census Bureau estimates using the age groups 20–39, 40–59, and 60 and over. Pregnant females were excluded from analysis.

NOTE: Underweight is body mass index less than 18.5 kg/m<sup>2</sup>.

SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey.

**Table 2. Age-adjusted prevalence of underweight among adults aged 20–74, by age and sex: United States, selected years 1960–1962 through 2011–2012**

Survey period	Sample (n)	Total <sup>1</sup>	Age (years)			Sex <sup>1</sup>	
			20–39	40–59	60–74	Men	Women
Percent (standard error)							
1960–1962	6,126	4.0 (0.3)	5.7 (0.4)	2.3 (0.3)	3.7 (0.6)	2.2 (0.3)	5.7 (0.4)
1971–1974	12,911	3.6 (0.2)	4.9 (0.4)	2.2 (0.3)	3.8 (0.4)	2.4 (0.3)	4.8 (0.3)
1976–1980	11,765	3.0 (0.2)	4.2 (0.3)	1.9 (0.3)	2.7 (0.4)	1.6 (0.2)	4.4 (0.3)
1988–1994	14,319	2.3 (0.2)	3.0 (0.4)	1.7 (0.3)	1.9 (0.3)	1.1 (0.2)	3.5 (0.3)
1999–2000	3,603	2.0 (0.2)	2.9 (0.5)	1.3 (0.2)	1.1 (0.2)	1.2 (0.2)	2.7 (0.6)
2001–2002	3,916	1.8 (0.2)	2.9 (0.5)	0.9 (0.2)	1.4 (0.4)	1.0 (0.3)	2.6 (0.4)
2003–2004	3,756	1.7 (0.2)	2.8 (0.3)	*1.0 (0.4)	*0.7 (0.3)	1.4 (0.3)	2.1 (0.4)
2005–2006	3,835	1.8 (0.3)	2.4 (0.6)	1.4 (0.4)	*1.1 (0.5)	1.3 (0.4)	2.4 (0.5)
2007–2008	4,876	1.6 (0.3)	1.9 (0.5)	*1.5 (0.5)	0.9 (0.2)	*0.9 (0.3)	2.3 (0.4)
2009–2010	5,279	1.9 (0.3)	2.0 (0.3)	2.1 (0.5)	1.2 (0.3)	1.0 (0.3)	2.7 (0.6)
2011–2012	4,674	1.7 (0.2)	2.5 (0.4)	0.9 (0.2)	*1.2 (0.5)	0.7 (0.1)	2.6 (0.4)

\* Estimate has a relative standard error greater than 30% and should be used with caution because it does not meet standards of reliability or precision.

<sup>1</sup>Age-adjusted by the direct method to the year 2000 U.S. Census Bureau estimates using the age groups 20–39, 40–59, and 60–74. Pregnant females were excluded from analysis.

NOTE: Underweight is body mass index less than 18.5 kg/m<sup>2</sup>.

SOURCE: CDC/NCHS, National Health Examination Survey (NHES) 1960–1962 and National Health and Nutrition Examination Surveys (NHANES) 1971–1974, 1976–1980, 1988–1994, and 1999–2012. Because NHES 1960–1962 and NHANES 1971–1974 and 1976–1980 did not include individuals over age 74, trend estimates are based on ages 20–74.