

## Prevalence of Overweight, Obesity, and Severe Obesity Among Adults Aged 20 and Over: United States, 1960–1962 Through 2017–2018

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Results from the 2017–2018 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate that an estimated 42.5% of U.S. adults aged 20 and over have obesity, including 9.0% with severe obesity, and another 31.1% are overweight. Body mass index (BMI), expressed as weight in kilograms divided by height in meters squared ( $\text{kg}/\text{m}^2$ ), is used commonly to classify overweight (BMI 25.0–29.9), obesity (BMI at or above 30.0), and severe obesity (BMI at or above 40.0).

Age-adjusted trends in overweight, obesity, and severe obesity prevalence from 1960–1962 through 2017–2018 are shown in [Table 1](#). Because surveys before 1988 did not include persons over age 74, [Table 1](#) shows the prevalence for adults aged 20 and over since 1988, and for adults aged 20–74 for all survey periods dating back to 1960. The age-adjusted sex-specific trends of overweight, obesity, and severe obesity among adults aged 20–74 from 1960–1962 through 2017–2018 are shown in the [Figure](#). [Table 2](#) contains the prevalence of obesity by age for men and women since 1988–1994, and [Table 3](#) contains the age-adjusted prevalence of obesity by race and Hispanic origin for men and women since 1988–1994.

The prevalence of obesity as measured by BMI among non-Hispanic Asian adults is consistently lower than that reported for non-Hispanic white, non-Hispanic black, and Hispanic adults. Although BMI is widely used as a measure of body fat, at a given BMI level, body fat may vary by sex, age, and race and Hispanic origin. In particular, research suggests that health risks may begin at a lower BMI among Asian persons compared with others ([1,2](#)).

NHANES, conducted by the National Center for Health Statistics, is a stratified, multistage probability sample of the civilian noninstitutionalized population of the United States. The survey began oversampling non-Hispanic Asian persons in 2011–2012 and the total Hispanic population in 2007–2008. Beginning in 2007–2008, Mexican-American persons were no longer oversampled but are included in the oversampled total Hispanic population.

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 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 are not included in the data analysis.

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

For more detailed estimates, see:

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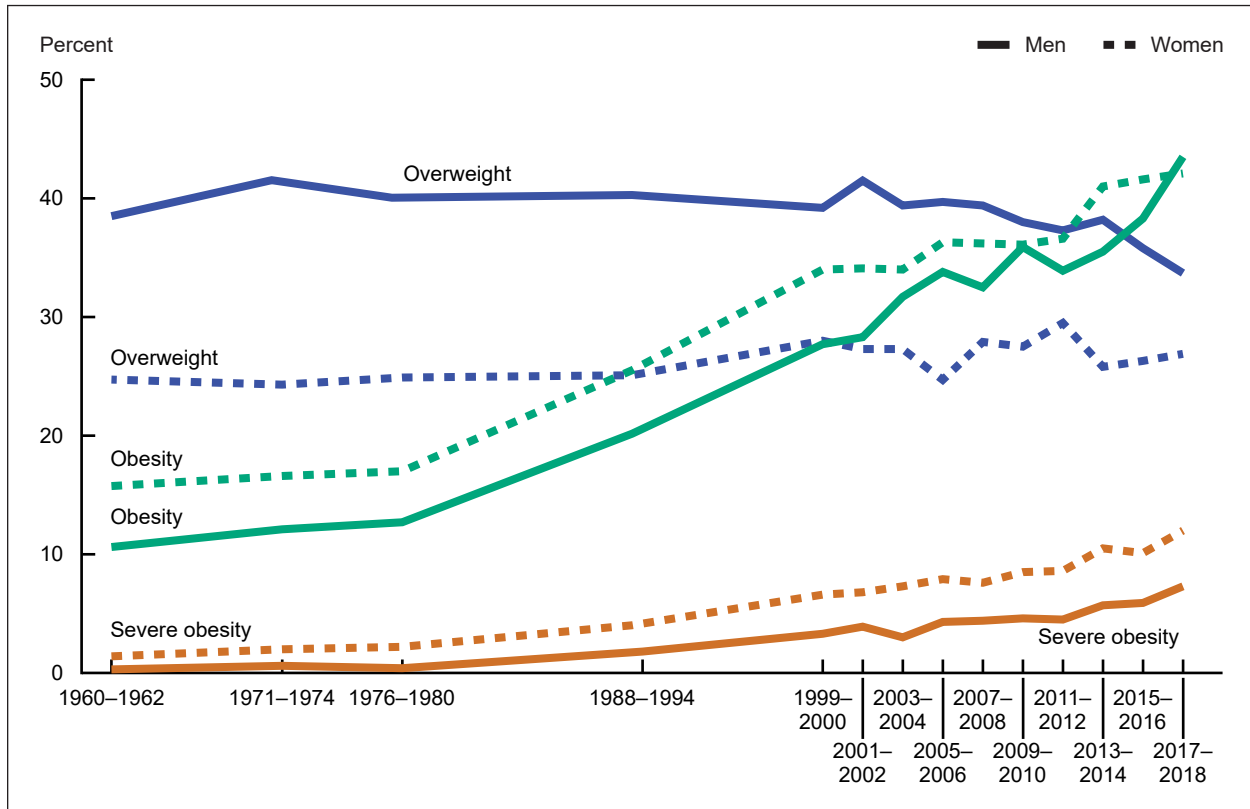
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## Suggested citation

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**Figure. Age-adjusted trends in overweight, obesity, and severe obesity among men and women aged 20–74: United States, 1960–1962 through 2017–2018**



NOTES: Data are age adjusted by the direct method to U.S. Census 2000 estimates using age groups 20–39, 40–59, and 60–74. Overweight is body mass index (BMI) of 25.0–29.9 kg/m<sup>2</sup>. Obesity is BMI at or above 30.0 kg/m<sup>2</sup>. Severe obesity is BMI at or above 40.0 kg/m<sup>2</sup>. Pregnant women are excluded from the analysis. SOURCES: National Center for Health Statistics, National Health Examination Survey and National Health and Nutrition Examination Surveys.

**Table 1. Age-adjusted prevalence of overweight, obesity, and severe obesity among adults, by sex: United States, 1960–1962 through 2017–2018**

Age group and survey period	Sample (n)	All			Men			Women		
		Overweight	Obesity	Severe obesity	Overweight	Obesity	Severe obesity	Overweight	Obesity	Severe obesity
20 and over <sup>1</sup> :		Percent (standard error)								
1988–1994	16,235	33.1 (0.6)	22.9 (0.7)	2.8 (0.2)	40.7 (0.8)	20.2 (0.7)	1.7 (0.3)	25.9 (0.7)	25.4 (0.9)	3.9 (0.3)
1999–2000	4,117	34.0 (1.0)	30.5 (1.5)	4.7 (0.6)	39.7 (1.4)	27.5 (1.5)	3.1 (0.7)	28.6 (1.6)	33.4 (1.7)	6.2 (0.7)
2001–2002	4,413	35.1 (1.1)	30.5 (1.1)	5.1 (0.5)	42.2 (1.3)	27.7 (1.0)	3.6 (0.6)	28.2 (1.7)	33.2 (1.5)	6.5 (0.6)
2003–2004	4,431	34.1 (1.1)	32.2 (1.2)	4.8 (0.6)	39.7 (1.5)	31.1 (1.3)	2.8 (0.4)	28.6 (1.2)	33.2 (1.7)	6.9 (0.9)
2005–2006	4,356	32.6 (0.8)	34.3 (1.4)	5.9 (0.5)	39.9 (1.3)	33.3 (2.0)	4.2 (0.5)	25.5 (1.2)	35.3 (1.4)	7.4 (0.7)
2007–2008	5,550	34.3 (0.8)	33.7 (1.1)	5.7 (0.4)	40.1 (1.4)	32.2 (1.4)	4.2 (0.5)	28.6 (1.2)	35.4 (1.1)	7.3 (0.6)
2009–2010	5,926	33.0 (1.0)	35.7 (0.9)	6.3 (0.2)	38.4 (1.1)	35.5 (1.7)	4.4 (0.3)	27.9 (1.4)	35.8 (0.9)	8.1 (0.5)
2011–2012	5,181	33.6 (1.3)	34.9 (1.4)	6.4 (0.6)	37.8 (1.5)	33.5 (1.4)	4.4 (0.9)	29.7 (1.8)	36.1 (1.7)	8.3 (0.7)
2013–2014	5,455	32.5 (0.8)	37.7 (0.9)	7.7 (0.7)	38.7 (1.2)	35.0 (1.1)	5.5 (0.6)	26.5 (0.8)	40.4 (1.3)	9.9 (0.9)
2015–2016	5,337	31.6 (0.8)	39.6 (1.6)	7.7 (0.6)	36.5 (1.6)	37.9 (2.3)	5.6 (0.7)	26.9 (1.0)	41.1 (1.6)	9.7 (0.7)
2017–2018	5,120	30.7 (1.1)	42.4 (1.8)	9.2 (0.9)	34.1 (1.8)	43.0 (2.7)	6.9 (1.0)	27.5 (1.0)	41.9 (2.0)	11.5 (1.3)
20–74 <sup>2</sup> :										
1960–1962	6,126	31.5 (0.5)	13.4 (0.5)	0.9 (0.1)	38.7 (0.7)	10.7 (0.7)	0.3 (0.1)	24.7 (0.8)	15.8 (0.6)	1.4 (0.2)
1971–1974	12,911	32.7 (0.6)	14.5 (0.4)	1.3 (0.2)	41.7 (1.1)	12.1 (0.6)	0.6 (0.2)	24.3 (0.7)	16.6 (0.6)	2.0 (0.3)
1976–1980	11,765	32.1 (0.6)	15.0 (0.4)	1.4 (0.1)	39.9 (0.8)	12.7 (0.6)	0.4 (0.1)	24.9 (0.8)	17.0 (0.6)	2.2 (0.3)
1988–1994	14,319	32.6 (0.6)	23.2 (0.7)	3.0 (0.3)	40.3 (0.8)	20.5 (0.7)	1.8 (0.3)	25.1 (0.8)	25.9 (1.0)	4.1 (0.3)
1999–2000	3,603	33.6 (1.1)	30.9 (1.6)	5.0 (0.6)	39.2 (1.5)	27.7 (1.6)	3.3 (0.7)	28.0 (1.7)	34.0 (1.8)	6.6 (0.8)
2001–2002	3,916	34.4 (1.1)	31.2 (1.1)	5.4 (0.5)	41.5 (1.4)	28.3 (1.1)	3.9 (0.7)	27.3 (1.6)	34.1 (1.6)	6.8 (0.6)
2003–2004	3,756	33.4 (1.2)	32.9 (1.3)	5.1 (0.6)	39.4 (1.5)	31.7 (1.4)	3.0 (0.4)	27.3 (1.3)	34.0 (1.9)	7.3 (1.0)
2005–2006	3,835	32.2 (0.9)	35.1 (1.5)	6.2 (0.5)	39.7 (1.3)	33.8 (2.2)	4.3 (0.5)	24.7 (1.3)	36.3 (1.5)	7.9 (0.8)
2007–2008	4,876	33.6 (0.8)	34.3 (1.2)	6.0 (0.4)	39.4 (1.4)	32.5 (1.5)	4.4 (0.5)	27.9 (1.2)	36.2 (1.3)	7.6 (0.6)
2009–2010	5,279	32.7 (1.0)	36.1 (0.9)	6.6 (0.2)	38.0 (1.2)	35.9 (1.7)	4.6 (0.4)	27.5 (1.5)	36.1 (0.9)	8.5 (0.5)
2011–2012	4,674	33.3 (1.4)	35.3 (1.4)	6.6 (0.6)	37.3 (1.5)	33.9 (1.5)	4.5 (1.0)	29.5 (2.0)	36.6 (1.6)	8.6 (0.7)
2013–2014	4,940	31.9 (0.8)	38.2 (1.0)	8.1 (0.8)	38.2 (1.3)	35.5 (1.2)	5.7 (0.7)	25.8 (0.9)	41.0 (1.4)	10.5 (1.0)
2015–2016	4,778	31.0 (0.8)	40.0 (1.8)	8.0 (0.6)	35.8 (1.8)	38.3 (2.4)	5.9 (0.8)	26.3 (1.1)	41.6 (1.7)	10.1 (0.7)
2017–2018	4,536	30.3 (1.2)	42.8 (1.9)	9.6 (1.0)	33.7 (1.9)	43.5 (2.7)	7.3 (1.0)	26.9 (0.9)	42.1 (2.1)	12.0 (1.5)

<sup>1</sup>Age adjusted by the direct method to the U.S. Census 2000 estimates using the age groups 20–39, 40–59, and 60 and over. Crude estimates (not age adjusted) for 2017–2018 are 31.1% for overweight, 42.5% for obesity, and 9.0% for severe obesity categories.

<sup>2</sup>Age adjusted by the direct method to the U.S. Census 2000 estimates using the age groups 20–39, 40–59, and 60–74. The 1960–1962 National Health Examination Survey included adults aged 18–79, and the 1971–1974 and 1976–1980 National Health and Nutrition Examination Surveys did not include individuals over age 74.

NOTES: Overweight is body mass index (BMI) of 25.0–29.9 kg/m<sup>2</sup>, obesity is BMI at or above 30.0 kg/m<sup>2</sup>, and severe obesity is BMI at or above 40.0 kg/m<sup>2</sup>. Pregnant women are excluded from the analysis.

SOURCES: National Center for Health Statistics, National Health Examination Survey, 1960–1962; and National Health and Nutrition Examination Surveys, 1971–1974, 1976–1980, 1988–1994, and 1999–2018.

**Table 2. Prevalence of obesity among adults aged 20 and over, by sex and age: United States, 1988–1994 through 2017–2018**

Survey period	All			Men			Women		
	20–39	40–59	60 and over	20–39	40–59	60 and over	20–39	40–59	60 and over
	Percent (standard error)								
1988–1994	17.7 (0.7)	27.9 (1.1)	23.7 (0.9)	14.8 (0.8)	25.4 (1.2)	21.2 (1.4)	20.7 (1.3)	30.3 (1.5)	25.6 (1.1)
1999–2000	26.0 (1.3)	33.5 (3.0)	33.5 (1.7)	23.7 (1.6)	28.8 (2.9)	31.7 (2.2)	28.3 (2.0)	37.7 (3.3)	35.0 (2.2)
2001–2002	26.1 (1.4)	33.9 (1.5)	32.8 (1.6)	22.3 (1.5)	32.2 (1.7)	29.9 (2.0)	29.8 (2.1)	35.7 (2.1)	35.0 (2.0)
2003–2004	28.5 (1.5)	36.8 (1.8)	31.0 (1.3)	28.0 (2.2)	34.8 (2.5)	30.4 (1.9)	28.9 (2.3)	38.8 (2.7)	31.5 (1.7)
2005–2006	29.1 (2.0)	40.4 (2.0)	33.4 (1.1)	27.9 (2.8)	39.6 (2.9)	32.2 (2.1)	30.5 (2.3)	41.1 (2.3)	34.4 (2.3)
2007–2008	30.7 (2.0)	36.2 (1.7)	35.1 (1.0)	27.4 (1.9)	34.2 (2.3)	37.0 (2.0)	34.0 (2.5)	38.1 (2.2)	33.5 (1.7)
2009–2010	32.6 (1.7)	36.6 (1.0)	39.7 (1.5)	33.2 (2.7)	37.2 (1.8)	36.6 (2.4)	31.9 (1.6)	36.0 (1.7)	42.3 (1.9)
2011–2012	30.3 (1.9)	39.5 (1.6)	35.4 (2.0)	29.0 (2.6)	39.4 (1.6)	32.0 (2.2)	31.8 (1.7)	39.5 (2.2)	38.1 (2.9)
2013–2014	34.3 (1.5)	41.0 (2.1)	38.5 (1.6)	31.6 (2.1)	37.2 (2.4)	37.5 (3.0)	37.0 (1.3)	44.6 (2.6)	39.4 (1.9)
2015–2016	35.7 (1.9)	42.8 (2.6)	41.0 (1.9)	34.8 (2.8)	40.8 (2.9)	38.5 (1.8)	36.5 (1.6)	44.7 (3.1)	43.1 (2.8)
2017–2018	40.0 (2.6)	44.8 (1.9)	42.8 (2.5)	40.3 (3.8)	46.4 (3.2)	42.2 (3.3)	39.7 (2.7)	43.3 (2.7)	43.3 (3.0)

NOTES: Obesity is body mass index at or above 30.0 kg/m<sup>2</sup>. Pregnant women are excluded from the analysis.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Surveys, 1988–1994 and 1999–2018.

**Table 3. Age-adjusted prevalence of obesity among adults aged 20 and over, by sex and race and Hispanic origin: United States, 1988–1994 through 2017–2018**

Survey period	Non-Hispanic white	Non-Hispanic black	Non-Hispanic Asian	Hispanic	Mexican American
All		Percent (standard error)			
1988–1994	21.6 (0.8)	30.7 (0.9)	---	---	29.4 (0.9)
1999–2000	28.7 (1.8)	39.7 (1.6)	---	---	34.3 (2.5)
2001–2002	30.2 (1.2)	39.0 (1.8)	---	---	31.0 (2.1)
2003–2004	30.6 (1.3)	45.0 (2.2)	---	---	36.8 (1.8)
2005–2006	32.9 (1.6)	45.8 (1.7)	---	---	33.9 (1.0)
2007–2008	32.4 (1.8)	43.9 (2.0)	---	38.7 (2.6)	40.3 (3.1)
2009–2010	34.3 (1.2)	49.5 (2.3)	---	39.1 (1.9)	40.4 (1.8)
2011–2012	32.6 (1.8)	47.8 (1.6)	10.8 (1.4)	42.5 (1.7)	46.6 (2.1)
2013–2014	36.4 (1.1)	48.4 (2.0)	12.6 (1.3)	42.6 (2.1)	46.4 (2.1)
2015–2016	37.9 (1.8)	46.8 (2.3)	12.7 (1.1)	47.0 (2.1)	49.4 (1.9)
2017–2018	42.2 (2.5)	49.6 (1.5)	17.4 (1.3)	44.8 (1.6)	50.4 (2.0)
Men					
1988–1994	20.3 (0.9)	21.1 (1.0)	---	---	23.9 (1.0)
1999–2000	27.3 (1.8)	27.9 (1.6)	---	---	28.9 (1.9)
2001–2002	29.0 (1.3)	27.9 (2.0)	---	---	25.9 (2.0)
2003–2004	31.1 (1.5)	34.0 (3.5)	---	---	31.6 (2.5)
2005–2006	33.0 (2.2)	37.0 (2.4)	---	---	27.0 (1.9)
2007–2008	31.9 (1.9)	37.2 (2.5)	---	34.2 (3.0)	35.8 (3.5)
2009–2010	36.2 (2.1)	38.8 (2.3)	---	37.0 (2.2)	38.6 (2.4)
2011–2012	32.4 (1.3)	37.1 (1.9)	10.0 (1.6)	40.1 (2.1)	44.0 (2.6)
2013–2014	34.7 (1.6)	38.0 (2.5)	12.6 (1.8)	37.9 (2.8)	42.2 (2.5)
2015–2016	37.9 (2.7)	36.9 (2.5)	10.1 (1.3)	43.1 (2.9)	46.2 (2.6)
2017–2018	44.7 (3.7)	41.1 (2.2)	17.5 (2.1)	45.7 (1.8)	51.1 (2.4)
Women					
1988–1994	22.9 (1.1)	38.4 (1.4)	---	---	35.4 (1.4)
1999–2000	30.1 (2.1)	49.5 (3.0)	---	---	39.5 (3.9)
2001–2002	31.2 (1.6)	48.2 (2.7)	---	---	37.0 (3.2)
2003–2004	30.2 (2.1)	53.9 (3.0)	---	---	42.3 (2.7)
2005–2006	32.9 (1.8)	52.9 (2.1)	---	---	42.1 (2.8)
2007–2008	33.0 (1.8)	49.4 (2.0)	---	43.0 (2.6)	45.1 (3.1)
2009–2010	32.2 (1.4)	58.5 (2.8)	---	41.4 (2.0)	44.9 (1.6)
2011–2012	32.8 (2.7)	56.6 (2.1)	11.4 (2.2)	44.4 (2.1)	49.2 (3.4)
2013–2014	38.2 (1.6)	57.2 (1.7)	12.4 (2.1)	46.9 (2.7)	50.9 (3.1)
2015–2016	38.0 (1.9)	54.8 (2.3)	14.8 (1.3)	50.6 (2.1)	52.3 (2.1)
2017–2018	39.8 (2.9)	56.9 (1.9)	17.2 (1.3)	43.7 (2.0)	49.6 (4.0)

--- Data not available.

NOTES: Obesity is body mass index at or above 30 kg/m<sup>2</sup>. Age adjusted by the direct method to U.S. Census 2000 estimates using the age groups 20–39, 40–59, and 60 and over. Pregnant women are excluded from the analysis.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Surveys, 1988–1994 and 1999–2018.