After a Decade of Increase, Obesity and Severe Obesity Have Trended Back Down

Team A: Kersten Bartelt, RN; Eric Barkley

Team B: Steve Allen, MD; Joe Longo

Last updated 04 February 2025 • Check for updates at EpicResearch.org

Key Findings:

- The rate of obesity in U.S. adults increased by 13.6% between 2010 and 2024, though the rate has remained largely unchanged since 2020. The rate of severe obesity in U.S. adults increased through 2021 then began trending downward through 2024.
- Adults aged 18 to 39 experienced the greatest increase of median BMI, from 26.1 in 2010 to 27.2 in 2024. Adults aged 40 to 59 also had an increase in median BMI, going from 28.6 to 29.3, while those aged 60 to 75 remained stable over the same period, even dropping in recent years.

Recently, there have been conflicting reports on the trends in obesity rates in the U.S., with some reporting a peak in the rate of obesity and others reporting the rate of obesity will continue to climb through at least 2025.^{1,2,3} The U.S. Centers for Disease Control and Prevention (CDC) reports that obesity increases the risk of high blood pressure, diabetes, and heart disease among patients as well as increased medical expenditure.⁴

We aimed to understand the trends in adult BMIs since 2010. We studied the BMI classification of more than 109 million patients who had an outpatient visit between Q1 2010 and Q3 2024.

We found that the percentage of adults classified as obese (BMI of 30 or greater) increased from around 40% in 2010 to around 45% in 2020, a 13.6% increase, and this rate remained fairly stable through 2024. The rate of severe obesity (BMI of 40 or greater) increased from 8.5% of patients in 2010 to 10.7% in 2021, followed by a downward trend to 10.3% in 2024. The rate of patients with a healthy weight dropped from 27.7% to 23.2% between 2010 and 2024.





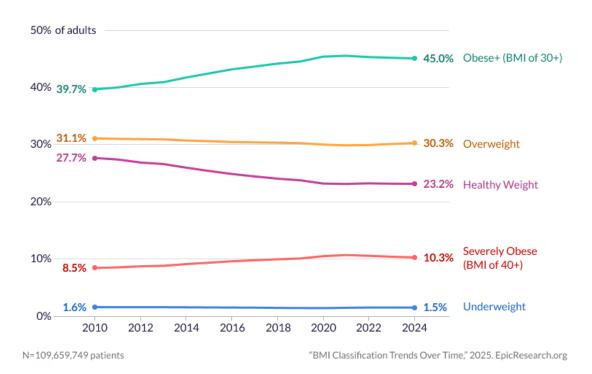


Figure 1a. Annual BMI classification rates among U.S. adults.



Difference in BMI Trends Over Time

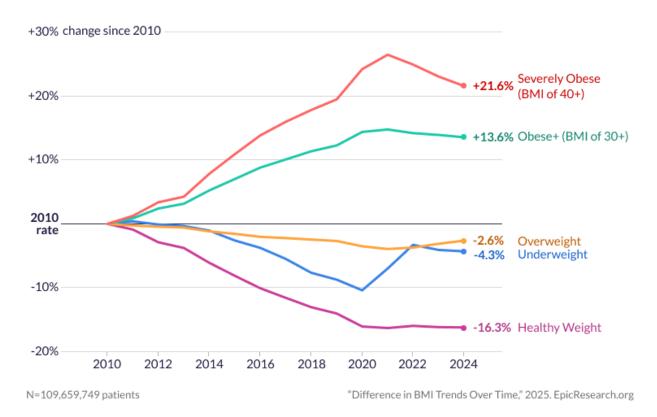


Figure 1b. Annual BMI classification difference compared to 2010 among U.S. adults.

Next, we examined the median BMI by age group. We found that adults aged 18 to 39 experienced the most significant increase, with median BMI rising from 26.1 in 2010 to 27.2 in 2024, a 4.4% increase. For adults aged 40 to 59, the median BMI increased from 28.6 in 2010 to 29.3 in 2024, a 2.6% increase. In contrast, adults aged 60 to 75 showed little change between 2010 and 2020, and then the median decreased through 2024.



Median BMI by Age Over Time

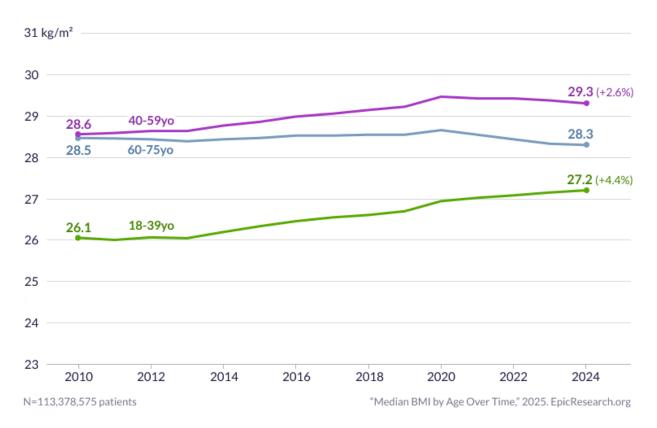


Figure 2. The annual median BMI by age group.

These data come from Cosmos, a dataset created in collaboration with a community of Epic health systems representing more than 294 million patient records from 1,600 hospitals and more than 37,000 clinics from all 50 states, Lebanon, and Saudi Arabia. This study was completed by two teams that worked independently, each composed of a clinician and research scientists. The two teams came to similar conclusions. Graphics by Brian Olson.

References

- 1. Ng M, Dai X, Cogen RM, et al. National-level and state-level prevalence of overweight and obesity among children, adolescents, and adults in the USA, 1990–2021, and forecasts up to 2050. Lancet. Published online 2024. doi:10.1016/s0140-6736(24)01548-4
- 2. Emmerich S, Fryar C, Stierman B, Ogden C. Obesity and Severe Obesity Prevalence in Adults: United States, August 2021–August 2023. National Center for Health Statistics (U.S.); 2024.
- Burn-Murdoch J. We may have passed peak obesity. Financial Times. <u>https://www.ft.com/content/21bd0b9c-a3c4-4c7c-bc6e-7bb6c3556a56</u>. October 4, 2024. Accessed November 21, 2024.
- 4. Adult obesity facts. U.S. Centers for Disease Control and Prevention. May 14, 2024. https://www.cdc.gov/obesity/adult-obesity-facts/. Accessed November 21, 2024.



Data Definitions

Term	Definition
Study period	Q1 2010 to Q3 2024
Study population	Patients aged 18 to 75 with an outpatient visit in each quarter with no history of lower limb amputation . No patients with pregnancies within the calendar quarter.
Lower limb amputation	A procedure with ICD-10-PCS code 0Y6 [*] or a diagnosis with ICD-9-CM Volume 3 code 84.10 to 84.19 or ICD-10-CM Z89.41 [*] to Z89.44 [*] , Z89.51 [*] , or Z89.56 [*]

Table 1: BMI Classifications Over Time – Percentages

Year	Underweight	Healthy	Overweight	Obese+ (BMI of 30+)	Severely Obese (BMI of 40+)
2010	1.6%	27.7%	31.1%	39.7%	8.5%
2011	1.6%	27.4%	31.0%	40.0%	8.6%
2012	1.6%	26.9%	30.9%	40.6%	8.7%
2013	1.6%	26.6%	30.9%	40.9%	8.8%
2014	1.6%	26.0%	30.7%	41.7%	9.1%
2015	1.6%	25.4%	30.6%	42.4%	9.4%
2016	1.5%	24.9%	30.5%	43.1%	9.6%
2017	1.5%	24.4%	30.4%	43.7%	9.8%
2018	1.5%	24.0%	30.3%	44.2%	10.0%
2019	1.5%	23.8%	30.3%	44.5%	10.1%
2020	1.4%	23.2%	30.0%	45.4%	10.5%
2021	1.5%	23.1%	29.9%	45.5%	10.7%
2022	1.5%	23.2%	29.9%	45.3%	10.6%
2023	1.5%	23.2%	30.1%	45.2%	10.4%
2024	1.5%	23.2%	30.3%	45.0%	10.3%

Table 2: Median BMI by Age Over Time

Year	18-39 уо	40-59 yo	60-75 уо
2010	26.1	28.6	28.5
2011	26.0	28.6	28.5
2012	26.1	28.7	28.5
2013	26.1	28.7	28.4
2014	26.2	28.8	28.5
2015	26.4	28.9	28.5
2016	26.5	29.0	28.6
2017	26.6	29.1	28.6



2018	26.6	29.2	28.6
2019	26.7	29.3	28.6
2020	27.0	29.5	28.7
2021	27.0	29.5	28.6
2022	27.1	29.5	28.5
2023	27.2	29.4	28.4
2024	27.2	29.3	28.3

