

# Combining data from several studies shows increase in BMI in children over generations

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A team of researchers from the University of North Carolina at Chapel Hill, Columbia University and Duke University has found that over the past several generations, child BMI has been slowly creeping upward in the U.S. In their paper published in *Proceedings of the National Academy of Sciences*, the group describes their analysis of data from four national longitudinal studies.

Prior research has shown that [obesity](#) in many developed countries has become widespread—one recent study showed that approximately 70% of adults in the U.S. are overweight. In this new effort, the researchers wondered if the obesity epidemic could be traced back to childhood. To find out if that might be the case, they obtained data from four national longitudinal studies which included weight information on 65,000 people ranging in age from 11 to 107 years old. To track changes in BMI over generations, the researchers divided the people in their data into five-year age groups—from 11 to 15, 16 to 20, etc. They then compared BMI over successive generations for each group.

The researchers found that average BMI has been

slowly creeping upward for each successive [generation](#) for all age groups including children. People born between 1950 and 1954, for example, had an average BMI of 25.8, (which is considered to be just a little bit overweight) by the time they reached their 30th birthday, while those born between 1980 and 1984 had a BMI of 30.2, which fell into the obesity category. Interestingly, they also found that average BMI for people 50 to 69 years of age actually decreased, which, the researchers noted, was primarily due to illnesses.

The researchers also found other patterns—people of color, for example, had a higher average BMI than [white people](#), for all age groups—most noticeably when they were young. They also found that more highly [educated people](#) tended to have lower BMI scores over the course of their lifetime than those with a limited education. And women, on average, tended to have a higher BMI than men.

The researchers suggest that a better understanding of the age at which people become obese could one day lead to reducing obesity in children, making it less likely they will be obese as adults.

**More information:** Yang Claire Yang et al. Life-course trajectories of body mass index from adolescence to old age: Racial and educational disparities, *Proceedings of the National Academy of Sciences* (2021). [DOI: 10.1073/pnas.2020167118](https://doi.org/10.1073/pnas.2020167118)

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