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Self-reported BMI bias estimates increasing due to weight bias, not weight loss

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The gap between obesity levels measured by self-reported height and weight and obesity recorded by measured height and weight is increasing. This is due to an increasing bias in self-reported weight, according to research published January 23 in the open access journal *PLOS ONE* by Frances Shiely and colleagues from University College of Cork, Ireland.

BMI is a ratio of height and weight used clinically to assess whether an individual's weight is in a healthy range. Previous studies have shown that people tend to over-estimate their own height and under-estimate their weight and it is generally assumed that both are responsible for under-estimation of self-reported BMI. The authors of this study have shown in previous work that under-estimation of BMI is increasing over time. Here, they assess whether this increasing inaccuracy is due to changing biases in self-reported height, weight, or both, using data from a representative sample of Irish adults.

The researchers found that the bias in self-reported height has remained stable over the last ten years regardless of gender, age or clinical BMI category. However, biases in self-reported weight have increased over time for both genders and in all age groups. The bias towards reporting a lower weight is most notable in those who are obese.

The authors state that knowing why self-reported BMI scores are decreasing while clinically measured BMIs are not "brings us one step closer to accurately estimating true obesity levels in the population."

More information: Shiely F, Hayes K, Perry IJ, Kelleher CC (2013) Height and Weight Bias: The Influence of Time. PLoS ONE 8(1): e54386. doi:10.1371/journal.pone.0054386