Obesity and Severe Obesity Forecasts Through 2030


Obesity prevalence in the United States has increased dramatically since the 1970s. Researchers who forecast future trends in obesity, assuming that obesity rates would continue to rise at the same rate, used past obesity prevalence to predict linear future trends. However, evidence suggests that obesity prevalence may be leveling off.

This analysis improved on previous research by relaxing the assumption of linear trajectories in the future rise of obesity prevalence. Furthermore, we modelled the relationship between obesity and state-level explanatory variables that were expected to influence obesity. We then forecasted the explanatory variables into the future using historical data and estimated future obesity prevalence by applying the relationship between these variables and obesity to the forecasted variables.

Our main source of data was the 1990-2008 Behavioral Risk Factor Surveillance System (BRFSS). We supplemented the individual-level BRFSS variables with state-level variables from the U.S. Bureau of Labor Statistics, the American Chamber of Commerce Research Association, and the Census of Retail Trade.

Linear time trend forecasts suggested that by 2030, 51% of the population will be obese. The model used in this analysis estimated a lower obesity prevalence of 42% and severe obesity prevalence of 11%. Still, we estimated a 33% increase in obesity prevalence and a 130% increase in severe obesity prevalence over the next 20 years.

If these forecasts prove accurate, efforts for healthcare cost containment will be hindered. Comparatively, if obesity were to remain at 2010 levels, the combined savings in medical expenditures over the next 20 years would be $549.5 billion.

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