



Forecasting the prevalence of overweight and obesity in India to 2040

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I. BACKGROUND

In India, the prevalence of overweight and obesity has increased rapidly in recent decades. Given the association between overweight and obesity with many non-communicable diseases, forecasts of the future prevalence of overweight and obesity can help inform policy in a country where around one sixth of the world's population resides.

II. METHODS

We used a system of multi-state life tables to forecast overweight and obesity prevalence among Indians aged 20–69 years by age, sex and urban/rural residence to 2040. We estimated the incidence and initial prevalence of overweight using nationally representative data from the National Family Health Surveys 3 and 4, and the Study on global AGEing and adult health, waves 0 and 1. We forecasted future mortality, using the Lee-Carter model fitted life tables reported by the Sample Registration System, and adjusted the mortality rates for Body Mass Index using relative risks from the literature.

III. RESULTS

The prevalence of overweight will more than double among Indian adults aged 20–69 years between 2010 and 2040, while the prevalence of obesity will triple. Specifically, the prevalence of overweight and obesity will reach 30.5% (27.4%-34.4%) and 9.5% (5.4%-13.3%) among men, and 27.4% (24.5%-30.6%) and 13.9% (10.1%-16.9%) among women, respectively, by 2040. The largest increases in the prevalence of overweight and obesity between 2010 and 2040 is expected to be in older ages, and we found a larger relative increase in overweight and obesity in rural areas compared to urban areas. The largest relative increase in overweight and obesity prevalence was forecast to occur at older age groups.



IV. CONCLUSION

The overall prevalence of overweight and obesity is expected to increase considerably in India by 2040, with substantial increases particularly among rural residents and older Indians. Detailed predictions of excess weight are crucial in estimating future non-communicable disease burdens and their economic impact