## Underestimating the true impact of obesity

The ever-increasing burden that obesity exerts on population health was recently explored in *The Lancet Public Health* by Solja Nyberg and colleagues.[1] The authors measured the loss of disease-free years attributable to major non-communicable diseases (NCDs) in obese adults compared with those who were normal weight. Individuals lost 3–4 more disease-free years if they were mildly obese and 7–8 more disease-free years if they were severely obese. These results show the alarming extent of obesity's impact on health; however, the true effect is likely to be even higher than reported.

The decision to use the six commonest NCDs could have led to an underestimation of the true effect size because obesity contributes a large morbidity burden through diseases not included in their analysis, such as musculoskeletal conditions and depression.[2] Lower back pain has been extensively linked to increased body-mass index[3] and is the leading cause of disability-adjusted life-year loss globally.[4]

Furthermore, as shown by the authors, the effect of their chosen conditions, particularly type 2 diabetes, was likely to be underestimated as only data from hospital and death registries were used. This data selection omits the huge burden of obesity-associated morbidity that exists solely in primary care.[5] It also could explain part of the considerable difference in disease-free years lost between mild and severe obesity; co-morbid conditions suffered by those with mild obesity are less likely to be severe enough to require inpatient management.

The effect of obesity through NCDs is likely to be more alarming than reported and this effect permeates through all social classes. More must be done through public health policy to tackle all levels of obesity.

We declare no competing interests.

*Jacob M Bradshaw, Samuel Ensor, Harry Lorenz, Christopher Spence, Guy Hucker
**jacob.bradshaw13@imperial.ac.uk**

Imperial College London, School of Medicine, South Kensington Campus, London SW7 2AZ, UK



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