

Encouraging mortality trends among the obese population in England, but public health challenges from rising obesity prevalence remain

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The increase in obesity prevalence has been a leading public health concern in many high-income countries in recent decades. Obesity has been widely found to increase the risk of mortality from several leading chronic diseases such as diabetes and heart disease, as well as all-cause mortality.¹ Consequently, rising obesity prevalence has been identified as a contributor to slowing, and reversal of, long-term improvements in mortality from cardiovascular diseases, especially below 75 years, and life expectancy.^{2,3} However, there has been limited evidence of trends in mortality rates specific to the obese population.

In this issue of *The Lancet Regional Health—Europe*, Sophia and others address this topic by investigating trends in all-cause and cause-specific mortality in England from 2004 to 2019 according to body mass index (BMI) level, using a dataset of BMI measured from primary healthcare records linked with mortality and causes of death from death registration.⁴ The authors found that all-cause mortality rates among the obese population in the study declined by 3% per annum for males and 2% per annum for females from 2004 to 2019. Notably, declines were even greater for cardiovascular disease mortality rates, a leading cause of death attributable to obesity, reaching 7% per annum for males and 4% per annum for females. Similar findings were also revealed for premature mortality (35–74 years). In contrast, there were increases in mortality rates in all BMI categories from neurological conditions, of which the leading cause of death is dementia.

These findings are important in the context of concerns about the role of obesity in adverse mortality trends. Declining mortality rates among the obese population is highly encouraging and, as the authors identify, likely reflects improvements in health behaviours, management of risk factors and treatment of conditions attributable to obesity, in particular cardiovascular diseases.⁴ However, the findings need to be interpreted in the context of England's high and increasing obesity prevalence—which has risen from 15% of adults aged 16 years and over in 1993 to 28% in 2019—that would at least partially offset the

improvements in mortality rates specific to the obese population (Fig. 1).⁵ Further, age-specific obesity prevalence in younger generations, especially aged below 50 years, has been much higher compared with older generations, approximately doubling in each age group from 16 to 54 years from 1993–2019.⁵ The longer duration of obesity that has been experienced by younger generations has the potential to lead to particularly adverse population-level death rates in coming decades.⁶ Hence, the declines in mortality rates among the obese population shown in this study are important to lessen these future threats to improved longevity.

A strength of the study is the use of primary health care data linked with death registration, which allows for direct measurement of mortality rates according to BMI level for a large population (n = 880,683). However, primary care records are not fully representative of the population and so do not include those who did not interact with primary health care or who did not have their BMI measured—the authors note that those more likely to have a health condition and females aged 16–60 years old are more likely to access primary care. Availability of other datasets with BMI measurements that can be linked with death registration data could further enhance the representativeness of such an analysis.

The study measured the cause of death using the underlying cause—that is, the disease that started the chain of events leading to death. Dementia has increasingly been reported as the underlying cause of death in the UK due to an increased policy focus on the condition, as noted by the authors, and may have contributed to the finding of a decline in cardiovascular disease mortality and increase in dementia mortality among the obese population. Given that chronic disease mortality commonly has multiple causes contributing to a death, use of multiple cause of death data reported on the death certificate would enhance understanding of trends in mortality from specific clusters of causes of death among the obese population, for example hypertension and diabetes. Future research using the dataset could also focus on mortality rates among the obese population during the COVID-19 pandemic, when obesity was found to increase the risk of dying from COVID-19 and which may have offset much of the improvements of preceding years.⁷

Understanding the ongoing role of obesity in population-level mortality trends is of vital importance



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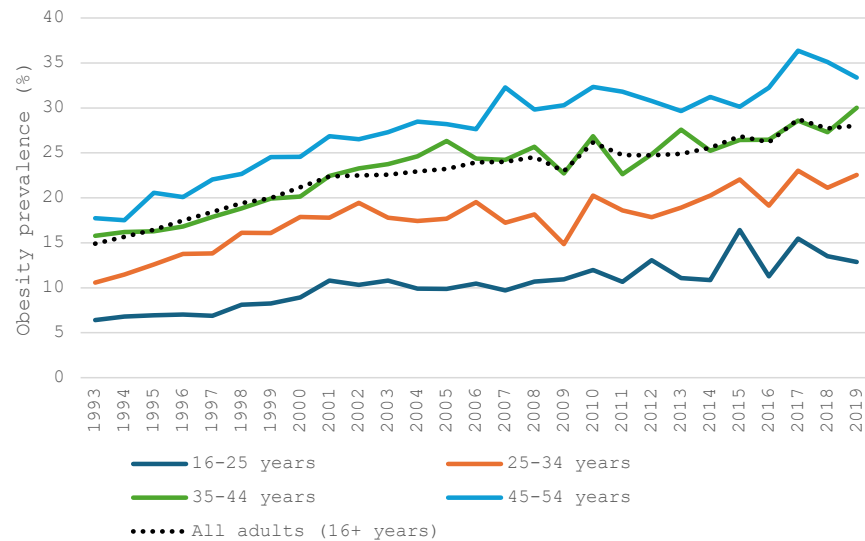


Fig. 1: Obesity prevalence (%), all adults and selected age groups, England, 1993–2019.⁵

in public health policy. This study’s findings are encouraging and continuation of these trends in coming years may be supported by semaglutide drugs, depending on the population’s access and adherence to the drugs and their longer-term impact on weight and mortality.⁸ There is also still an urgent and significant role for government and non-government institutions to promote healthy diet and lifestyles—such as the introduction of the Soft Drinks Industry Levy in the UK that reduced sugar content in drinks—and improve physical environments given continuing rises in obesity prevalence, especially among younger generations.^{9,10}

Declaration of interests

I declare no competing interests.

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