

The rise of the obesity epidemic

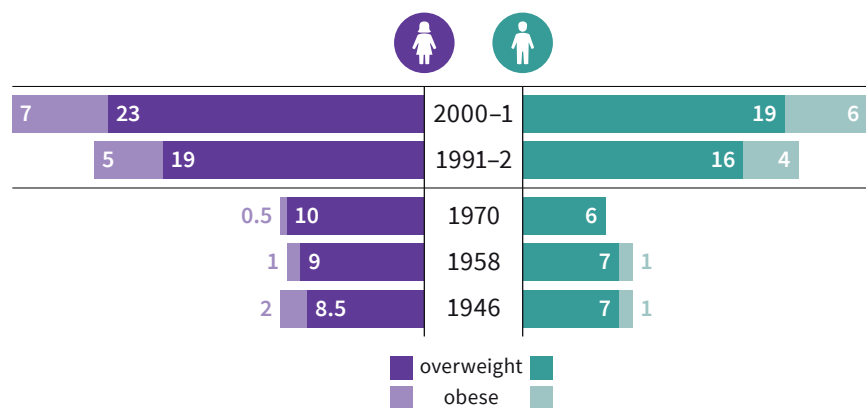
£22.9 bn
per year
by 2050

Obesity poses a major public health threat around the world. In the UK, the Government Office for Science estimates that the obesity 'epidemic' will cost the National Health Service £22.9 billion per year by 2050. But little is known about how people develop weight problems over the course of their lives, and how this has changed over time. CLOSER has tracked the rise of the obesity epidemic across the lives of five generations of Britons born in 1946, 1958, 1970, 1991-92 and 2000-01.

Child obesity risk has increased three-fold in five generations

Children born since 1990 are up to three times more likely than older generations to be overweight or obese by age 11. Around one in ten children born in 1946 were overweight or obese by age 11, compared to more than one in four 11-year-olds today.

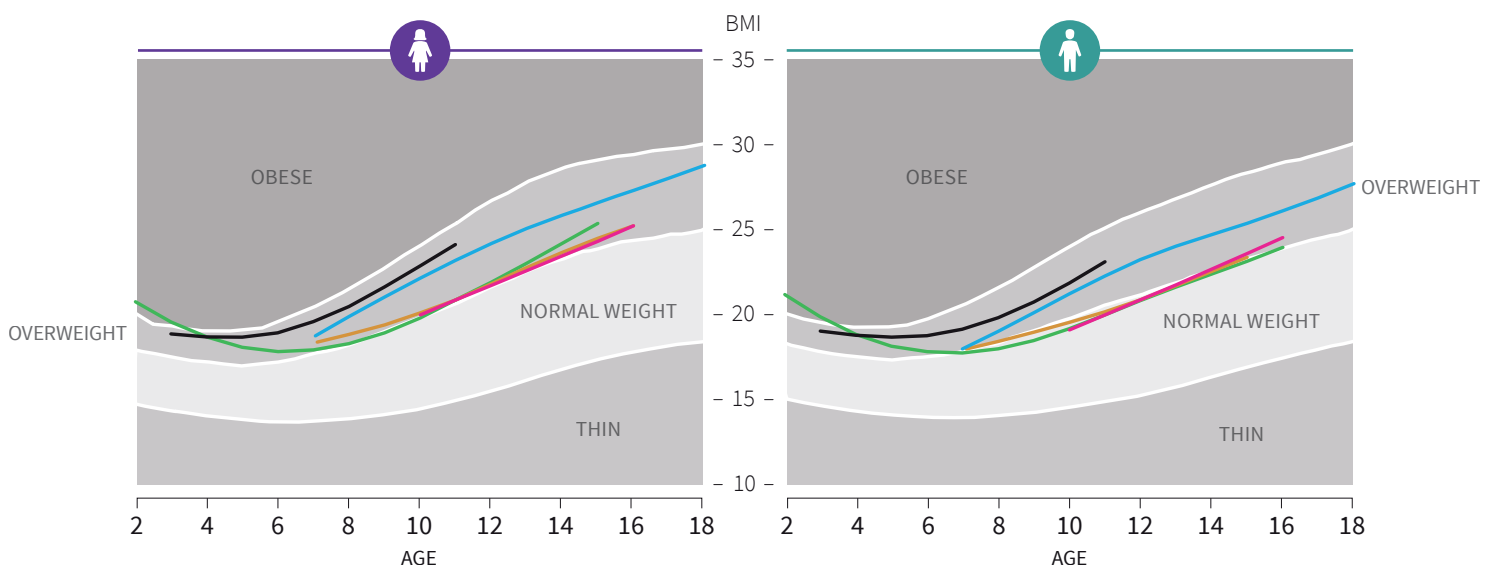
Percentage overweight and obese at age 11 in each generation



Every generation is heavier than the last

Since 1946, every generation has been heavier than the previous one - and it is the most overweight children who are becoming even heavier. The heaviest 9 per cent of people born in 1946 had a BMI of 20 or above by the age of 11, compared to 23 or above for the most overweight children born at the turn of the century.

BMI in childhood (91st percentile)

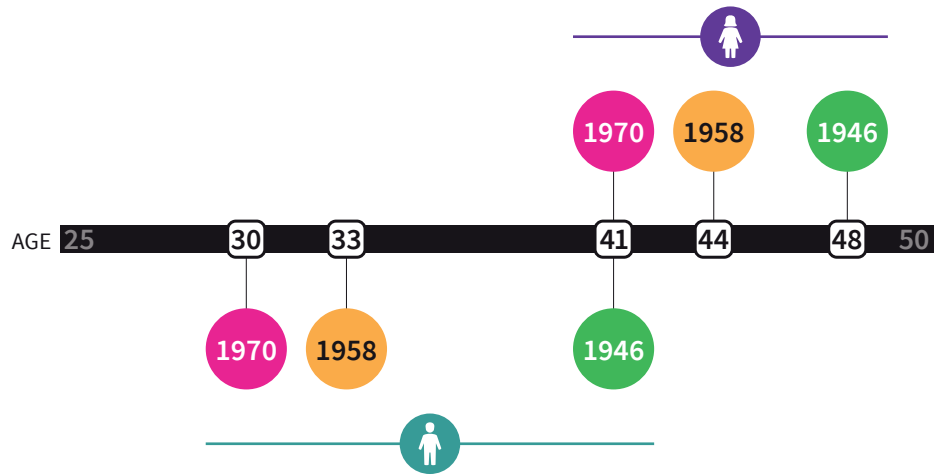


	IOTF CUT-OFFS FOR AGE 11	
	Girls	Boys
OVERWEIGHT	21	20.5
OBESE	25	25
THIN	15	15

Overweight is hitting the majority of the population earlier in life

People are becoming overweight or obese at an increasingly younger age. Half the men of the 1946 generation were overweight by the time they were 41, compared to age 30 for men born in 1970. Half the women born in 1946 were overweight by age 48, compared to age 41 for the 1970 generation.

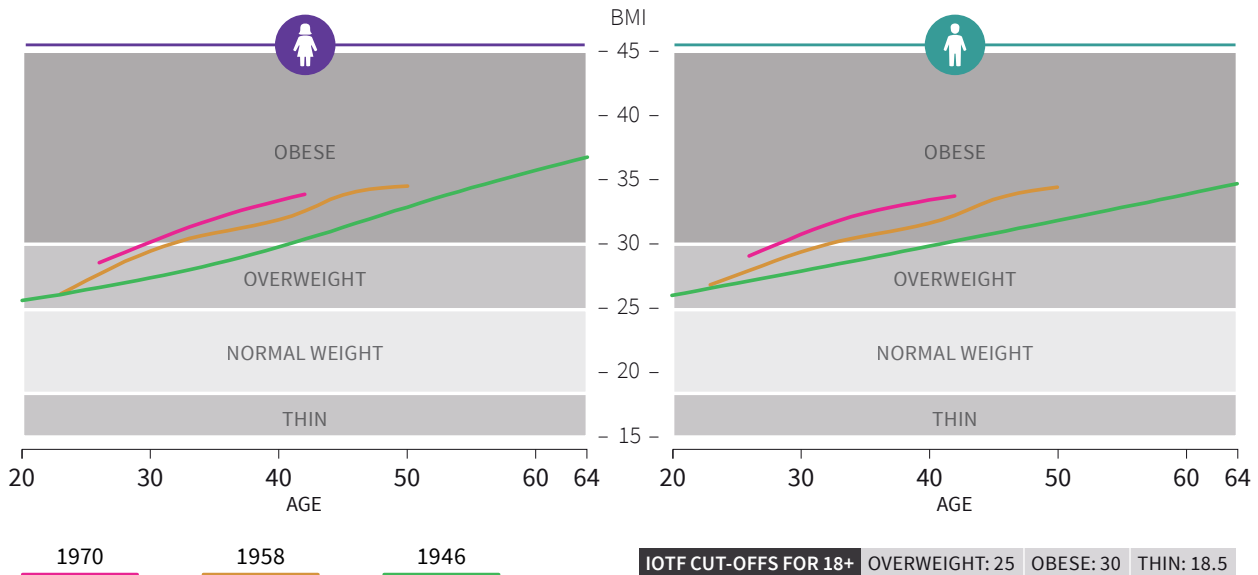
Age at which the majority of the generation is overweight



The risk for younger generations follows them into adult life

Excess weight increases risk of chronic health problems. The longer people stay overweight, the greater their risk of developing chronic health conditions such as coronary heart disease, type 2 diabetes, high blood pressure and arthritis. Among British adults, the generation born in 1970 continues to be heavier and gain weight more rapidly than those born in 1946 or 1958. Again, the generational differences are greatest among the heaviest people.

BMI in adulthood (91st percentile)



It's never too early – or too late



The UK needs to target its public health interventions at younger and younger ages in order to stem the spread of the obesity epidemic.



For those who are overweight, shedding the excess pounds at any point in adulthood can help reduce the risk of obesity-related health conditions.

Reference

Johnson, W., Li, L., Hardy, R. and Kuh, D. (2015) How has the age-related process of overweight or obesity development changed over time? Coordinated analyses of individual participant data from five United Kingdom birth cohorts. *PLOS Medicine* 12(5), e1001828.

Notes

This research uses data from five UK birth cohort studies: the MRC National Survey of Health and Development (1946 birth cohort), the 1958 National Child Development Study, the 1970 British Cohort Study, the Avon Longitudinal Study of Parents and Children (1991-92 birth cohort), and the Millennium Cohort Study.

Body mass index (BMI) is calculated by dividing an individual's weight in kilogrammes by their height in metres squared. This research uses the International Obesity Task Force cut-offs for normal weight, overweight and obese.

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Funded by

