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The role of diet and exercise on weight and health

Initial findings from the Next Steps Age 25 Sweep

Next Steps Age 25 Sweep

The Next Steps Age 25 Sweep took place between August 2015 and September 2016. A total of 7,707 cohort members took part by web, telephone or face-to-face interviews. Data from this sweep and previous sweeps of Next Steps are available to download from the UK Data Service.

Introduction

There is evidence of an obesity epidemic among people of all ages. Evidence from the USA shows that the greatest increases in overweight and obesity is among people aged 18 to 29. It is important to understand some of the drivers of obesity, and how it affects our general health.

The Age 25 Sweep of Next Steps (previously known as the Longitudinal Study of Young People in England) should help policymakers and researchers with the ongoing task of understanding the relationship between weight and health. The study collected information on all aspects of cohort members' lives at age 25, including physical and mental health, wellbeing, family structure, employment, and drug and alcohol consumption.

This briefing paper summarises the effects of diet and exercise on weight and general health at age 25. It explores the prevalence and risks for overweight, obesity and general health at this age.

Key findings

- 42 per cent of 25-year-olds were overweight or obese, while 53 per cent were normal weight or underweight.
- 12 per cent said their general health was fair or poor, while 88 per cent rated their health as excellent, good or very good.
- Women had lower odds of being overweight or obese than men, after taking into account social background, ethnicity, sleep patterns, diet and exercise.
- Getting seven hours' sleep or more per night lowered the odds of being overweight or obese, compared to getting six hours or less.
- Having six or more fizzy drinks a week was associated with being overweight or obese, as was having weekly takeaways.
- Those who were obese or overweight had lower odds of reporting they were in good or excellent general health.

CENTRE FOR LONGITUDINAL STUDIES

The Centre for Longitudinal Studies is an Economic and Social Research Council Resource Centre based at the UCL Institute of Education.

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Findings

Weight

Fifty per cent of 25-year-olds had a normal body mass index (BMI), while 3 per cent were underweight, 26 per cent were overweight and 16 per cent were obese[1].

Predictors of overweight and obesity

Gender and ethnicity: Figure 1 shows that women had 19 per cent lower odds than men of being overweight or obese at age 25. White men and women had higher odds of being overweight or obese than those of Indian and Other ethnicities. But there were no significant differences between White and Mixed, Pakistani, Bangladeshi, Black Caribbean and Black African groups.

Social class: Social class appeared to be related to overweight and obesity. Compared with those whose parents were professionals or managers, 25-year-olds from an intermediate class background[2] had 26 per cent higher odds of being overweight or obese. Those whose parents worked routine jobs had 40 per cent higher odds.

However, lifestyles played an important role over and above individual characteristics and social background.

Exercise: Those who participated in sport at least once a month had 31 per cent higher odds of being overweight or obese than those who took part once a week. Interestingly, there was no statistically significant difference between those who participated in exercise at least once a week and those who exercised less often or never.

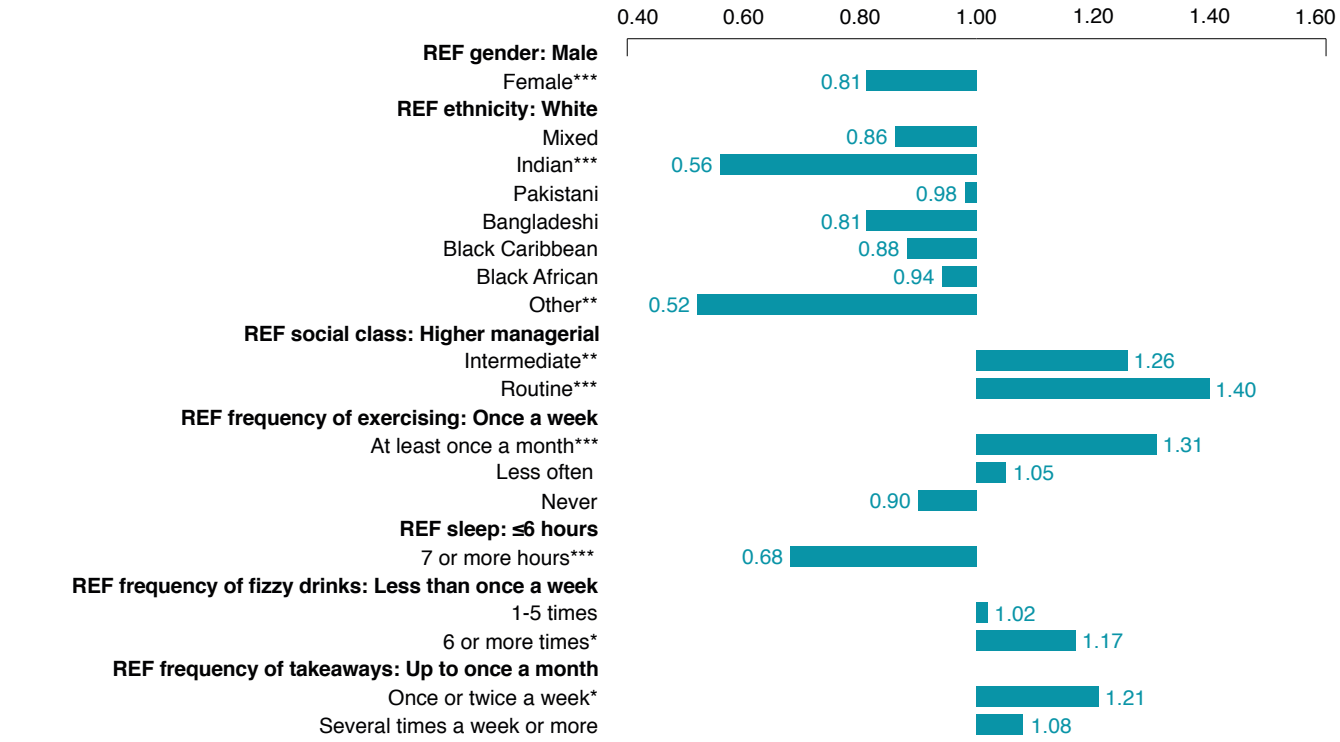
Sleep: Not getting enough sleep was also associated with being overweight or obese. Those who slept for seven hours or more each night saw their odds of being obese or overweight decreased by

Body mass index (BMI)

At age 25, Next Steps cohort members reported their own height and weight. This allows researchers to calculate body mass index (BMI).

Cohort members were categorised as underweight (BMI of less than 18.5), normal weight (BMI between 18.5 and 24.9), overweight (BMI between 25 and 29.9), or obese (BMI higher than 30), according to the standard classification used by the National Health Service (NHS).

FIGURE 1:
Predicting overweight and obesity



*** p<0.001, ** p<0.01, * p<0.05

32 per cent, compared with those who lept for six hours or less.

Diet: As anticipated, diet was a significant predictor of being overweight or obese. For example, those who had fizzy drinks six or more times a week saw their odds of being obese increase by 17 per cent, compared with those who had them rarely or never. Having one to five drinks was not significantly different from having them rarely or never. Similarly, frequent takeaways, including from a restaurant or a fast-food outlet, increased the risk of obesity. Those who had a takeaway once or twice a week had a 21 per cent greater risk of being obese or overweight than those who had up to one takeaway a month.

Self-assessed general health

Eighty-eight per cent of cohort members reported having either good, very good or excellent general health, while 12 per cent reported their health as either fair or poor.

Predictors of general health

Weight: Figure 2 shows that those who are either overweight or obese had 34 per cent lower odds of reporting having good, very good or excellent general health.

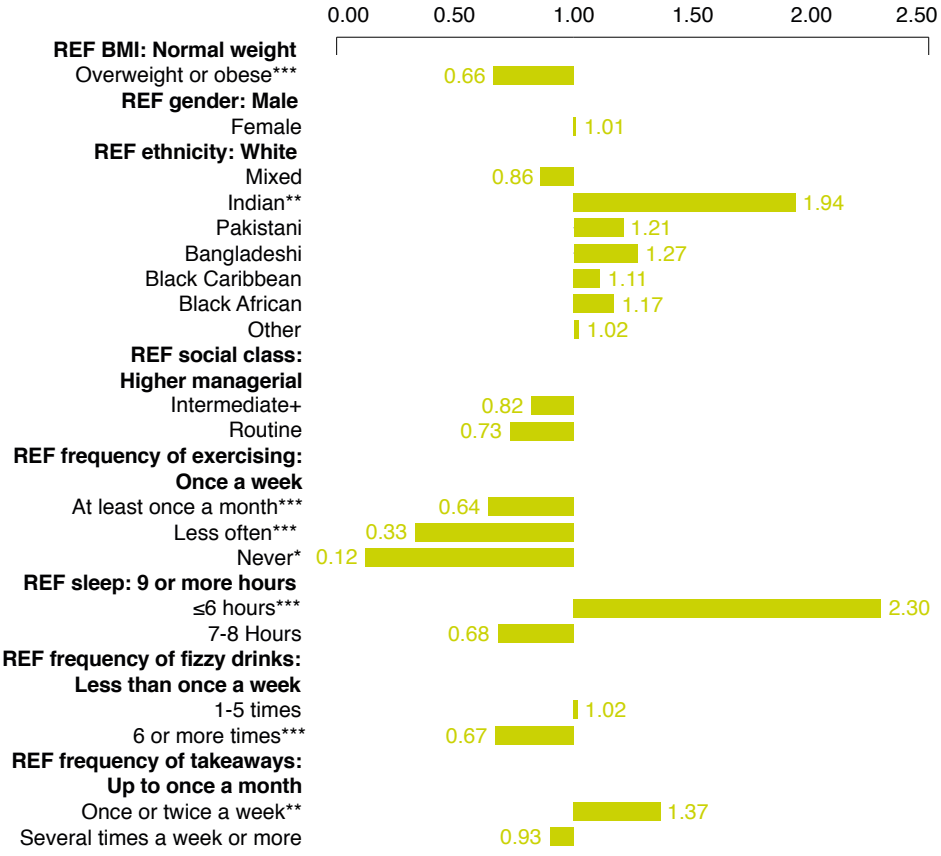
Gender and ethnicity: There were no gender differences in self-reported general health. The only significant difference between ethnic groups was that Indians had 94 per cent higher odds of having good self-reported general health than their White peers.

Social class: There was limited evidence of a relationship between social class and self-reported health. Those from an intermediate class background had 18 per cent lower odds of being in good health than those whose parents were professionals or managers, although this was only weakly significant ($p<0.10$).

Exercise: Those who took part in sports or other exercise at least once a month had 36 per cent lower odds of reporting good or excellent general health, compared to those who exercised at least once a week. The odds for those who exercised less than once a month dropped by 67 per cent, and by 88 per cent for those who never exercised.

Diet: Those who reported having fizzy drinks six or more times a week had 33 per cent lower odds of reporting good or excellent health than those who had them less than once a week. There was no statistically significant difference between having fizzy drinks one to five times a week, and less than once a week. Rather surprisingly, those who reported having a takeaway once or twice a week compared to once a month or less had 37 per cent higher odds of reporting good or excellent general health. However, the association between eating takeaways and positive general health may be due to wealth.

FIGURE 2:
Predicting excellent, very good or good self-assessed general health



*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Footnotes

1 Four per cent did not provide sufficient information to calculate BMI. Where numbers do not add up to 100 per cent, this is due to rounding.

2 Those from an intermediate class background work in routine non-manual jobs, are small proprietors or are technicians and supervisors.

Conclusions

These initial findings indicate that while the majority of 25-year-olds are in good general health, those who are overweight or obese are less likely to rate their general health positively than their normal weight peers. Moreover, the results show that 42 per cent of these 25-year-olds are either overweight or obese. Men are at a higher risk of overweight and obesity than women, so too those from lower socioeconomic backgrounds. Exercise and sleep play important roles in obesity, which is consistent with previous research. These findings suggest that it is important for policymakers focus on these lifestyle and behavioural characteristics including sleep, diet and exercise.

About Next Steps

Next Steps (previously known as the Longitudinal Study of Young People in England) is following the lives of around 16,000 people born in 1989-90.

The study began in 2004, when the cohort members were aged 13/14, and collected information about their education and employment, economic circumstances, family life, physical and emotional health and wellbeing, social participation, and attitudes or seven consecutive years.

In 2015, 7,707 cohort members took part in the Age 25 Sweep. This eighth sweep of the cohort broadened the scientific remit and value of the study, collecting information on health, education, employment, family formation, and wellbeing.

Data from the study have been linked to National Pupil Database records, which include the cohort members' individual scores at Key Stage 2, 3 and 4. Other administrative linkages are also planned.

Research based on Next Steps has had a significant impact on UK policy, in areas such as educational funding, bullying and educational trajectories. It will continue to provide a vital source of evidence for policymakers and researchers addressing social challenges for years to come.

The first seven waves of the study were managed and funded by the Department for Education. In 2013, Next Steps was transferred to the UCL Centre for Longitudinal Studies. The Age 25 Sweep was funded by the Economic and Social Research Council.

Future research

This briefing has highlighted some initial findings on health and weight at age 25, and has revealed some interesting differences by lifestyle factors. However, there is a great deal more information in earlier sweeps of Next Steps about exercise and lifestyle, including rich socio-demographic characteristics, which researchers could use to explore protective and risk factors longitudinally.

Acknowledgements

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