

Rates of pre-diabetes have tripled over past decade in England

More than one in three adults now affected; steep rise in diabetes predicted if trend continues

[Prevalence of prediabetes in England from 2003 to 2011: population-based, cross-sectional study doi 10.1136/bmjopen-2014-005002]

The prevalence of pre-diabetes - higher than normal blood glucose levels - has tripled within the space of 8 years in England, reveals research published in the online journal BMJ Open.

More than a third of adults in England now have pre-diabetes, the findings suggest, with those who are disadvantaged and of black and minority ethnicity disproportionately affected. If nothing is done to halt this trend, the country faces a steep rise in the prevalence of diabetes, as up to one in 10 of those with pre-diabetes will progress to diabetes every year, warn the authors.

They base their findings on an analysis of data collected for the representative Health Survey for England for the years 2003, 2006, 2009 and 2011 and those participants who had provided a blood sample. In all, the data covered more than 20, 000 people.

Pre-diabetes was classified as a glycated haemoglobin - a measure of blood glucose control - of between 5.7% and 6.4%. Diabetes is usually classified as a glycated haemoglobin of 6.5%.

Analysis of the data showed that the prevalence of diagnosed diabetes rose from 3.55% in 2003 to 5.59% in 2011. But the rise in the prevalence of pre-diabetes was much greater. This rose from 11.6% to 35.3% between 2003 and 2011. Older age, overweight, obesity, high blood pressure and high cholesterol were all associated with pre-diabetes risk.

By 2011, half the survey participants (50.6%) who were overweight with a BMI of more than 25, and aged at least 40, had pre-diabetes. There was no gender difference in rates.

Those living in some of the most deprived areas of the country were more likely to have pre-diabetes in 2003 and 2006, but this association was no longer significant by 2009 and 2011.

But after taking account of age, sex, ethnicity, BMI and high blood pressure, people who lived in the second most economically deprived areas of the country were 45% more likely to have diabetes by 2011.

Although diabetes is associated with more complications than its precursor condition, people with pre-diabetes are still at risk of vascular, kidney, and eye problems, the authors point out.

They admit that the data don't reveal whether any of the survey participants had been screened or treated for their condition, and while this does not alter the prevalence figures, it could affect the policy implications, they say.

Nevertheless, they describe the rise in the proportion of adults who meet the criteria for pre-diabetes as "extremely rapid," and conclude: "In the absence of concerted and effective efforts to reduce risk, the number of people with diabetes is likely to rise steeply in coming years."