13/10/2016

Much of the social inequality in heart disease risk among UK women is due to smoking, obesity and physical inactivity

Women with lower levels of education and living in more deprived areas of the UK are at greater risk of coronary heart disease, and this is largely due to smoking, obesity and physical inactivity, according to a study of over a million women published in the open access journal *BMC Medicine*.

Dr Sarah Floud, lead author from the University of Oxford, said: “Women with fewer educational qualifications and from more deprived areas of the UK were more likely to smoke, be obese and be physically inactive, although they consumed slightly less alcohol. We found that these factors accounted for most of the social inequalities in heart disease risk. The most important factor, however, was smoking: it alone accounted for about half of the associations of heart disease with education and deprivation.”

This study included 1.2 million participants in the Million Women Study, about 1 in 4 of all UK women born in the 1930s and 1940s. During 12 years of follow-up 72,000 women developed heart disease. The large numbers made it possible to look carefully at the extent to which four lifestyle factors - smoking, alcohol consumption, physical activity and body mass index - accounted for the known social inequalities in heart disease.

The researchers found that, without taking into account the four lifestyle factors, women who had completed compulsory schooling with no qualifications had almost twice the risk of developing heart disease or dying from it than women who had a degree. Similarly, women in the most deprived areas had twice the risk of heart disease compared to women from the least deprived areas. After taking into account the lifestyle factors the differentials in risk diminished.

Dr Floud adds: “It is important to recognize that these health-related behaviors are themselves influenced by education and deprivation, and that it is harder to change them if you don’t have the resources to do so.”

These results underline the importance of existing public health policies to reduce smoking and to promote healthy eating and increased physical activity. The more disadvantaged members of society are often the hardest to reach but the findings from this study emphasize the potential gains that could be made in reducing rates of heart disease if they are reached.

**-ENDS-**