

in brief...

Smoking during pregnancy

Maternal smoking during pregnancy remains prevalent in many countries despite decades of research testifying to the harm it imposes on the unborn child. Following the 1998 'Smoking Kills' White Paper, which identified ending maternal smoking as a target of future UK government policy, a national telephone helpline was launched to help pregnant mothers devise strategies for quitting smoking.

But since one in five mothers in the UK still smoke while pregnant, current policy does not seem to be having a big impact. To gain a better understanding of how policy can get its message across more strongly and target pregnant mothers more effectively, research by Emma Tominey explores how smoking during pregnancy lowers child health at birth.

The study confirms that mothers who smoke during pregnancy will have smaller babies – typically 5.4% (6.5oz) lighter than other babies. But around half of this damage is because of 'unobservable traits' of the mother – including other health risks she might take, such as drinking alcohol, and her nutrition and knowledge of healthy behaviour.

The research also finds that the lasting harm to babies of smoking during pregnancy is greatest if the mothers have a lower level of education. Children born to mothers who left school at the age of 16 suffer double the harm for each cigarette smoked. This suggests that the government must target its anti-smoking policy directly at poorly educated families.

And it is important to note that women who do smoke in the early stages of pregnancy should not be written off as being too late to help. Surprisingly, the research shows that the harm to the baby is essentially reduced to zero if the mother quits by month five of the pregnancy. This is much longer than conventional wisdom and previous research have suggested.

Possible causes for this finding could either be that the harm from smoking accumulates during the final months of pregnancy, or because the mothers who quit smoking simultaneously reduce their health risks in other ways. Either way, this tells us that there is more time than we thought to help the mothers change their behaviour during pregnancy.

Overall, the research suggests that while stopping mothers smoking during pregnancy is important, it is only half the battle. Other studies have shown that the effects of being born underweight stay with a child throughout its life, affecting its health, education and earnings potential (see Behrman and Rosenzweig, 2004, and Black et al, 2007). This study shows that in order to lower the incidence of underweight births, stopping a mother from smoking must be combined with helping her to be healthier in other areas of her life.

Previous studies have identified a link between smoking and low birth weight, but none have looked in such depth at whether the education of the mother can alter this and how the harm accumulates during pregnancy. Emma Tominey's study analyses data on the lives of 6,500 children and their mothers, and goes into exceptional detail about the mothers' lifestyle, tracking them from their child's birth until the age of 42. This proved to be very important, as not only does the harm vary according to the mother's education, but traits of the mother that are often unobservable account for around half of the harm.

The study calls on the government to alter radically its policy on helping pregnant women quit smoking, in particular targeting the children of poorly educated mothers. A much more holistic approach to improving child health in pregnancy is needed to help thousands of children break out of the poverty trap.

This article summarises 'Maternal Smoking During Pregnancy and Early Child Outcomes' by Emma Tominey, CEP Discussion Paper No. 828 (<http://cep.lse.ac.uk/pubs/download/dp0828.pdf>).

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Further reading

Jere Behrman and Mark Rosenzweig (2004), 'Returns to Birth Weight', *Review of Economics and Statistics* 86(2): 586-601.

Sandra Black, Paul Devereux and Kjell Salvanes (2007), 'From the Cradle to the Labour Market? The Effect of Birth Weight on Adult Outcomes', *Quarterly Journal of Economics* 122(1): 409-39.

