

# What About The Children?

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*'Raising awareness of the never-changing emotional needs of the under-threes in our ever-changing society'*

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## RESEARCH SUMMARY

### **The infant health effects of starting universal child benefits in pregnancy: Evidence from England and Wales.**

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Money payments to mothers in pregnancy are not common in most countries of the world. However, in more recent times these have become available in Italy (2019), Finland (2020), France and USA (2022).

A recently published paper reported birth outcome data from England and Wales, concerning the impact on maternal and child health of a payment made to pregnant women. This took place for a period of two years, from 2009 to 2011. In 2008 the then Health Minister had suggested payment of a 'Health in Pregnancy' Grant (HPG) might go some way to addressing the serious problem of underweight and prematurely born babies in the UK. Birth weight is a critical indicator of health outcomes across the life course with, for example, effects manifested in educational attainment in children and, later on, in labour market earnings.

The purpose of the grant, it was argued, might serve to improve the health of the infant (in utero) by improving the mother's health (though better nutrition and stress reduction) during the last three months (trimester) of pregnancy. So, from 2009-11 a lump sum of £190 - equivalent at that time to 3 months of child benefit payments - was paid to the mother once she had attended her first prenatal visit to a doctor or mid-wife and completed the necessary forms.

The study, conducted at the London School of Economics and Political Science (LSE) sought evidence concerning whether payments of the HPG (2009-2011) *actually did* have a positive impact on the babies born during this period - also which, if any, part of the population had been helped most by the grant? Babies' birth weights and the *actual* birth dates compared to the *predicted* dates of birth were ascertained from birth registry and hospital records for England and Wales for all babies born from April 2006 to April 2014. Comparisons were then made between the babies born April 2009 – January 2011 with those born outside that period.

During the specified time period there was a significant increase in birthweight (8-12 grams on average), a reduction in low birth weight (<2500g) by 3-6% and decrease in prematurity by 9-11%. When analysing the youngest 10% of mothers (those under 21 years), there was an increase in birth weight of 35g which was significant in comparison with the population as a whole. The researcher also looked at the

increase in birth weight of babies related to the mothers' age, by splitting the data into four quartiles: 24 and under; 24-29; 29-34 and 34 and over. In each case, the nutrition of the mother, stress, and any unhealthy behaviours (such as smoking) were considered as possible influencing factors. It was found that during the period 2009-2011 there indeed was a significant increase in the birth weight (25 grams) in babies born to mothers in the first quartile (24 years and under) and a marginally significant increase in the fourth quartile, 34 and over (19g increase), with no significant effect for the middle two age groups.

The author then looked at the effect of social deprivation in both the younger and older quartiles. The age group 24 and under was found to include the more economically-deprived mothers. The study showed a significant effect (at 5% level) on the *reduction* in the percentage of babies with low birthweight, linked to prematurity only from this particular group.

What was the cause of these results? Three main possibilities were considered: subsidising better nutrition; reducing the likelihood of smoking; and reducing prenatal stress. The literature suggests better nutrition increases intrauterine growth rate but does not affect gestational length, so this was discounted. The data on reduced smoking, shows that there was no significant decline in smoking during the period 2009-2011. This leads to the most likely effect of longer gestation being due to *less stress* in the mothers. Stress had not been specifically measured so the conclusion is speculative. However, from the literature, stress predominately affects birth weight due to prematurity, rather than intrauterine growth and in this research a reduction of prematurity of 9-11% was documented.

The effects of the HPG were larger for groups at greater risk of prenatal stress. Specifically, poverty and financial instability are associated with an accumulation of multiple chronic stressors and higher cortisol levels. Maternal stress during the third semester contributes to prematurity via the release of glucocorticoids, which stimulate production of corticotrophin releasing hormone (CRH) with the likelihood of early delivery. Since HPG was paid during the third trimester, it is arguable that the grant mitigated against stress-induced prematurity of this kind.

The author writes: 'The main remaining hypothesis is that the Grant reduces stress among pregnant women, thereby reducing the risk of prematurity and boosting birth weight' (Reader, 2023, p2).

Dr C Ulanowsky and Dr E A Bland

*Policy implications:*

Ideally this should be available as a universal benefit as many mothers experience stress during their pregnancy.

If resources are limited, the youngest mothers-to-be (<21 years), and those who have specific risk factors for prematurity, should be prioritised since the research evidence is strongest for those groups.

Prof J Barnes