



Social disadvantage has a lasting impact on childhood asthma

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About the research

- Asthma is the most common long-term health childhood condition in the United Kingdom and disproportionately affects health and quality of life in disadvantaged groups
- The link between social disadvantage and life-long risk of asthma may be due to increased early life risk factors such as smoking during pregnancy, preterm birth resulting in immature lungs, and poor air quality
- These exposures all occur more frequently in children from disadvantaged groups

What we did

- We assessed how early life risk factors such as smoke exposure, birth weight, duration of breastfeeding, housing and neighbourhood conditions explained the impact of socioeconomic circumstances at birth on asthma in later life using a nationally representative sample of more than 7,000 babies from birth in 2000/01 to the age of 14 years

Policy implications

- Inequalities in children's lung health begin from the first days of life and persist into adolescence
- Two-thirds of the inequalities are driven by risk factors in infancy and early childhood including:
 - not being breastfed
 - premature birth
 - passive exposure to tobacco smoke
 - damp living conditions
 - neighbourhoods with poor indoor and outdoor air quality
- Improvements in housing, support during pregnancy and the early years, and financial support for families living in poverty are needed to give every child the best start in life to level health inequalities [1]

Further information

Further information on the wider project which this research is part of can be found at:

<https://nihrsphr.link/DataChildHealth>

<https://nihrsphr.link/SocialDisadvantageAsthma>

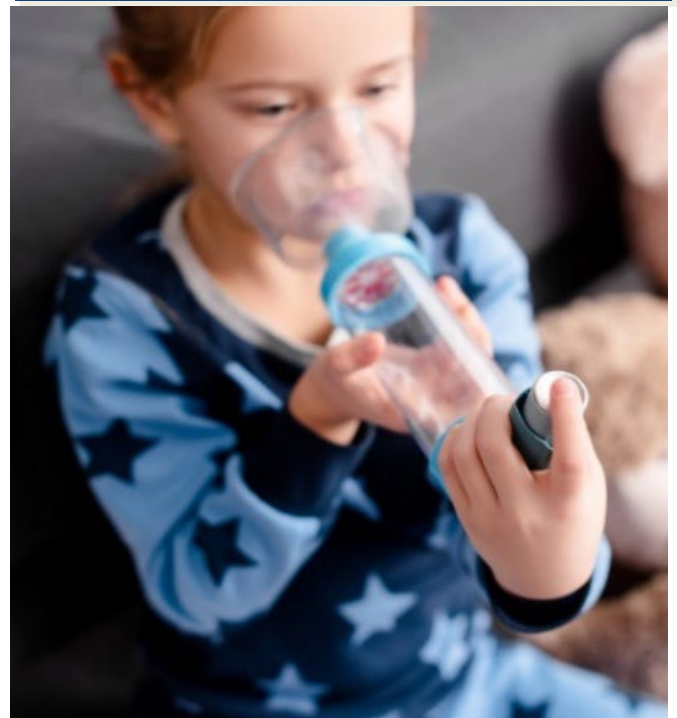
<https://thorax.bmj.com/content/77/9/854.abstract>

Contact the researchers

For more information about this work contact Dr Hanna Creese

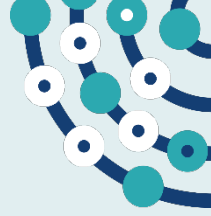
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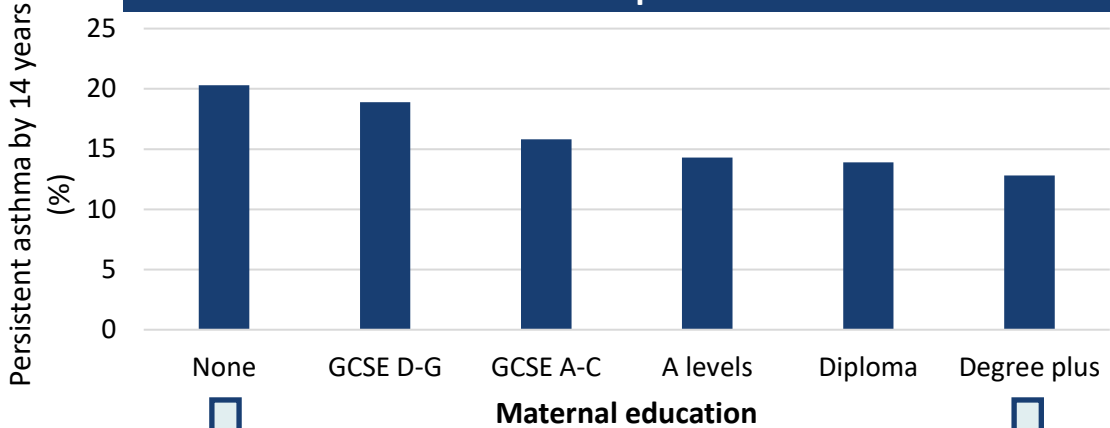
¹Marmot, M., Allen, J., Boyce, T., Goldblatt, P., Morrison, J., , *Health Equity in England: The Marmot Review 10 Years on*. 2020, Institute of Health Equity.

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Key findings

Maternal education at birth and persistent asthma in adolescence



20% of the most disadvantaged children had persistent asthma



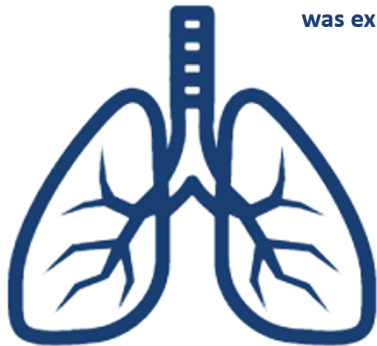
Vs **13%** of the most advantaged



Being born into disadvantaged circumstances increased risk of persistent asthma by

70%

Almost **two-thirds** of risk was explained by



pregnancy & infancy characteristics



& environmental exposures by the age of 3 year.



About the School

The NIHR SPHR is a partnership between the Universities of Sheffield; Bristol; Cambridge; Imperial; and University College London; The London School for Hygiene and Tropical Medicine (LSHTM); LiLaC – a collaboration between the Universities of Liverpool and Lancaster; and Fuse - The Centre for Translational Research in Public Health a collaboration between Newcastle, Durham, Northumbria, Sunderland and Teesside Universities.



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This project is funded by the National Institute for Health and Care Research (NIHR) School for Public Health Research (Grant Reference Number PD-SPH-2015). The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.