Social disadvantage has a lasting impact on childhood asthma
Hanna Creese,1 Eric Lai,2,3 Kate Mason,2 Daniela Schlüter,2 Segal Saglani,4 David Taylor-Robinson,2 Sonia Saxena1

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 lifelong 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

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]

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

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
Email: h.creese@imperial.ac.uk
Twitter: @HannaCreese


1 Imperial College London (ICL), 2 LiLaC, 3 Chinese University of Hong Kong, 4 National Heart and Lung Institute, ICL
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 the 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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